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AMSTRAD ACTION

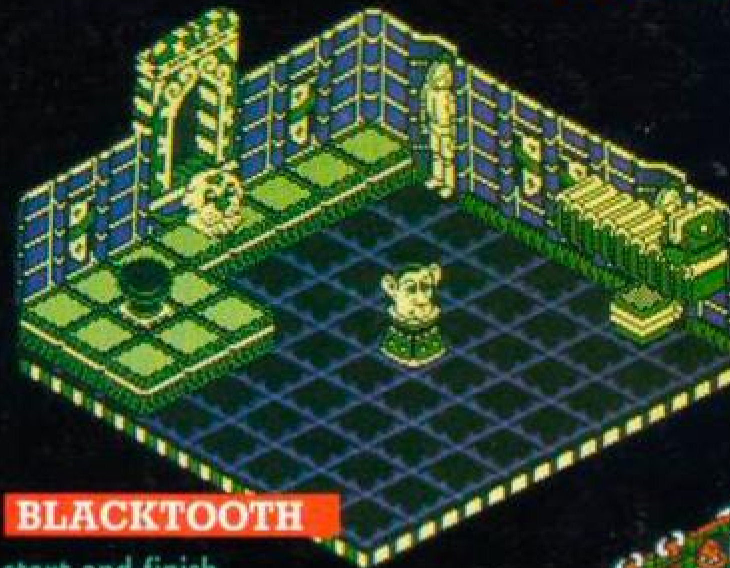
THE MOULD-BREAKING MAGAZINE FROM FUTURE PUBLISHING

BRITAIN'S LEADING MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

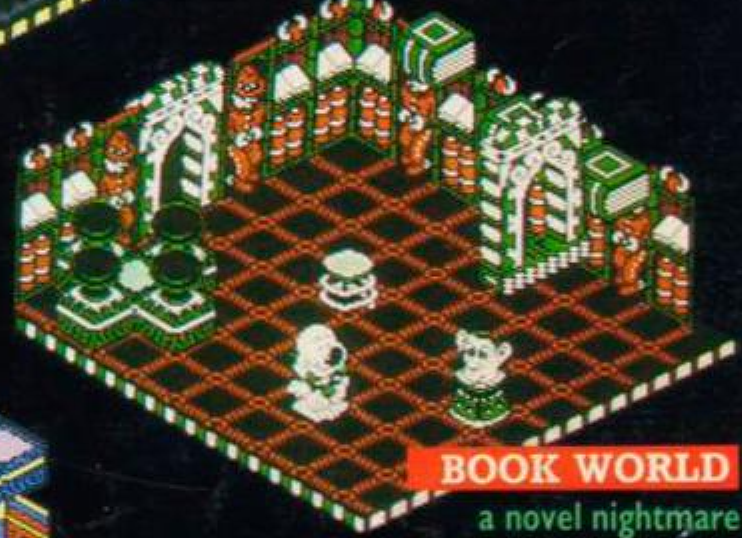
No. 22 JULY 1987 £1.25

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THE LINE-UP

AMSTRAD ACTION JULY 1987

FRONT END

NEWS ● LETTERS



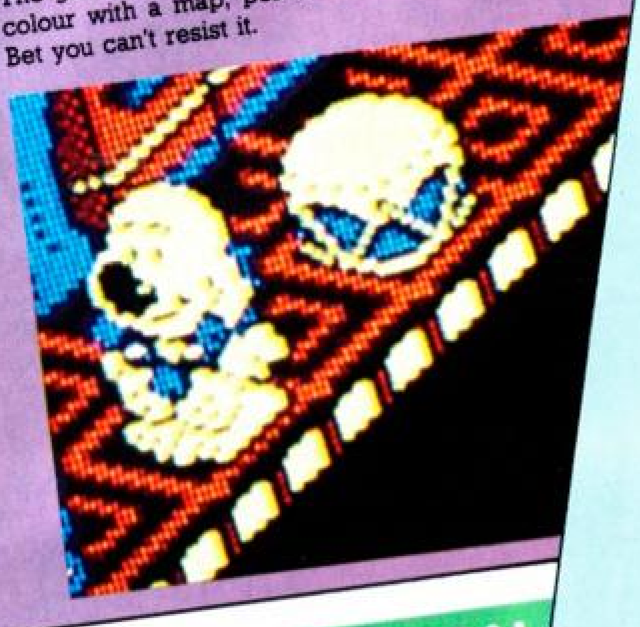
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INTERACTION

CREATED BY YOU AND FOR YOU

WRAPPING UP

THINGS TO BUY ● BYE

Home sweet home

Future Publishing is a thriving young business. Since our move from the Old Barn to Bath, it even looks the part: from rustic to Regency, manure to haute-couture.

Of course the only problem is that there are over 150 pubs within a mile or two and we haven't been able to test them all out yet. One particularly dedicated journalist on our sister magazine *PC Plus* has compiled the Staggering Guide to the pubs near the office, based upon years of careful research. So if you ever visit Bath you've got a one-in-150 chance of finding us.

Back in Somerton there's now a lot more room at the Old Barn, and so all the mail-order is being handled from there. Sue Taylor, our longsuffering Santa Claus who handles the mail-order, will in future work solely from the offices. This means that you shouldn't try to contact her on the old phone number (her home number), but should call the Old Barn number, **(0458) 74011**, with any queries – or use the 24-hour hotline on **(0458) 74192** for credit-card orders.

This issue is all the better for our move. It offers what we think is the best coverage of *all* uses of the Amstrad CPCs: from home accounting with the *Home Finance Program* to an unbeatable playing guide to *Head Over Heels*, and from more in-depth Type-Ins to the innovative Mastergame *Passengers on the Wind*.

Your questionnaires have been flooding in. By next issue we should have some interesting facts and figures to let you in on. One thing's for sure: there's no lack of opinions, on all manner of subjects. We've taken note of them and we'll act on some.

Favourite office pastime at the moment is playing pub trivia machines and eating pizzas. So by next month I'll have put on a few pounds round my waist and lost a few out of my wallet.

Have a good read.

Bob

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REACTION

Her Majesty's postperson has not lost us, despite our 35-mile move from Somerton to Bath. Your postcards and epistles, hot and cold, are still (pardon the wet phrase) pouring in.

Topics this month include everything from weather, April fools and sacred initials to that old problem: software promised but not available or not reliable.

Our subscription and mail-order services are still in Somerton, so we ask you not to mix items for separate departments on the same piece of paper. Reaction is at the new editorial office, 4 Queen Street, Bath, BA1 1EJ. Or you can write electronically via Telecom Gold 84:txt152, or Micronet 045 874 011 – remember to include your name and Earth address (and phone number).

And again, if you want a magazine next month, please don't expect individual answers to all your letters.

AMX Ragemaker

I am feeling anger and frustration toward software companies in general and Advanced Memory Systems Ltd in particular. For the uninitiated, this company does the AMX software and mouse utilities advertised in most Amstrad magazines.

Way back in the mists of time (January 1987) this company started advertising a very promising piece of software called *Max*, a disk utility that operates in a Wimp (windows, icons, mouse, pointers) environment. At the time of writing this letter (8 April) the company tells me this program is still not available, nor is it able to give a concrete date.

Why oh why do companies persist in advertising goods so far in advance when they know full well the product is nowhere near ready? It makes my blood boil.

Now I have got that off my chest I'd like to compliment you on the excellent magazine you produce. I am an avid reader of all the CPC magazines and can safely say that in the quality of articles and features *AA* stands above all the others. Also I'd like to praise the art team and the cover photographer for the imaginative and eyecatching artwork and presentation. Keep up the good work.

IA Pattle
St Clement, Jersey

■ *[Copy to AA of letter to AMS]* I enclose my original program disk, manual and invoice for *AMX Pagemaker*, version 1.01B. I have spent the last fortnight's evenings trying to get the program to function satisfactorily using my 6128, DMP 2000 and AMX mouse. Please return a version of the program that functions as described in the manual or refund my money.

This list of faults is not comprehensive as I gave up in frustration: Rules will not change from centimetres to inches. Selection of rectangular screen area will not work. Undo icon "X" is always present but seldom works. Cannot scroll page while "spray" is selected in graphics mode, no "end of page" message. Date prompt does not appear. Screens are saved with the pull-down menu as part of the image, spoiling it. Cutouts are saved as blank. Current font is not displayed when requested. Bold, italic and attribute affects don't work. If a text window is defined no *Tasword* file will flow into it.

I have some ten months experience working with *Aldus Pagemaker* on the Apple Macintosh with Laserwriter. For the price, *AMX Pagemaker* compares well for home users, if only you can sort out the many serious bugs.

What surprises me most of all is the excellent reviews that *Amstrad Action* and *Computing with the Amstrad* gave to *AMX Pagemaker*. Did their reviewers actually try to use the program? I'm copying this letter to them for information.

PA Townsend
Shoeburyness, Essex

We reviewed version CD 0.80 B and we certainly did use it: it produced the cover of AA 17. We spotted the bugs you list, but didn't mention them because Cygnet promised they would all be cured by the time the program and the magazine hit the streets.

As for Max, we too are eagerly awaiting it. We're all old enough by now to know that any advert must be taken with a pinch of salt. In the case of software, that means believe it's available only when you see it reviewed in AA.

Weather sense

David Bolton (Reaction 20) asked about weather reports [being received from satellites]. Any Microlink member can download a short Amstrad program in the Weather section. This will convert the data received from the satellite. You get a beautiful picture of the world and cloud movement, same as you see on TV reports.

M Mohd. Salleh
London SW7

■ I use a Mapsat weather-satellite receiver and decoder system from Maplin Electronics and display the pictures successfully on my Amstrad 464 computer.

The 137-138Hz signals (FM, circular polarization) are received from either the Russian Meteor satellites or the American Tiros N satellites, using a dipole antenna. Output from the decoder is connected to an 8-bit input port, which has to be purchased separately from Maplin.

Software is published in issue 20 of *Electronics*, the Maplin magazine, along with full construction details. Receiver details are in issue 18.

You may find you need a black-and-white TV because the colours are confusing, so you may also need a modulator to suit your computer. 16 shades of colour are available, and the resolution in mode 2 is very good indeed. The sync tone card will need to be set up using a scope or a frequency counter.

Mark Bowles
Billingshurst, W Sussex

■ The Maplin kit comes in three parts: the receiver £60, the decoder £80 and the aerial £11. You may also need to buy the sync kit at £13 and diode board kits at £6 each. As each item comes in kit form you will have to build it yourself, so some degree of electronics skill is needed. It is described as suitable for the Amstrad so there should be no real problems. However, some simple programming will be needed to convert the input to the correct screen formats. Full details are on page 256 of the latest Maplin catalogue, available at WH Smith. Other kits for the Amstrad as well as books are listed, so it's well worth the £1.50.

David Stubbs
Southampton

■ *Practical Wireless* magazine has a monthly article on all the major weather satellites and regular updates on frequencies, orbits and new launch information. If Mr Bolton would like to contact me and send a blank tape I'd be glad to give him what information I have and a copy of some satellite audio.

Mike Worsley
17 Woodhall Way
Fareham, Hants



"APPARENTLY THERE'S A BIT OF CLOUD IN UTTAR PRADESH"

Let thy right hand know

I expect I ought to feel bad about this. Thank you for the cheque for £20 sent for my *Tasword* poke (Hot Tips 20). I have been persuaded, by looking at a friend's copy, to spend your gift on a copy of *Protext*.

And I claim the free book offered for spending your money so freely!

For your interest, I am a 36-year-old Baptist minister and find *AA* the only magazine with the right balance of serious stuff and fun and games. I use a 6128 and green screen to do my sermons etc and a 464 and colour screen to play games with my two boys (8 and 6). My wife thinks the 464 is great. She never touches it but likes the way the boys play on it with me and let her get on with "more interesting things".

Revd DJ Saunders
Laindon, Basildon, Essex

Won't be a fool again

I bought the April issue of *Computing with the Amstrad* because I saw it had a program which would supposedly compile Basic programs. The method was very simple – to take the machine-code created by the interpreter and store it in memory as the program ran. I typed in this program – 15 or so lines of horrible data – and ran it, saved the binary, reset, loaded it, loaded my Basic prog, executed the code. This gave the supposed length of the machine-code, which I saved. I then reset once more, loaded the compiled program in and called the appropriate address. What do I get?

```
* April Fool * It is IMPOSSIBLE
to get Basic to compile a program
```

Aaaaaaagghhh!

The method seems reasonable, so why is it impossible to get Basic to compile a program? Can machine-code do it in this manner?

This has put me off *CWTA* completely.

Gavin Manning
London E11

Yes, the method sounds reasonable to us too. But... Any suggestions?

Un ami de plume

I'm French and I read your magazine each time I go in London. Please can you write this letter in your Reactions:

Hello! I'm 15 and I search boys and girls (many girls!) who's a Amstrad CPC 6128. I would change games and ideas. I'll answer all your letters.

Christophe Denivet
1 allée des Bois, Francilly
02760 Holnon, France

Expand away

Would it be possible for me to plug a 64k memory expansion into my 464 and add a disk drive so to use 6128 software?

Martyn Barmby
Bolton, Lancs

Yes. The only exceptions we can think of immediately are the original Art Studio *and the Alligata game* Meltdown. *You can even use CPM Plus with this setup, if you can get a copy.*

Waggle!

Long may your joystick waggle!

Chris Howe
Uxbridge, Midx

Value for space

Why do you not review compilations of software? I am a 6128 owner and find disk software far too expensive, so I buy only compilations, for they are value for money.

Compliments to the *AA* team for producing such a classy mag with style and zest. And to the lady on the phone who sorted out my problem.

Mark Arrowsmith
Denbigh, Clwyd

Our policy on compilations is to tell you about them in the news pages but to save our limited time and space for reviewing new releases. Claire has framed your letter by her phone; thanks for thanking.

A terrible fate

Please could anybody help? I have a copy of *Office Mate* by Gemini Marketing Ltd which has several defects. The first is in the file-convert program: when I try to convert a cashbook file the program develops a "type mismatch" on line 9030. I have tried breaking the line down into several smaller lines without success.

Gemini has gone into liquidisation and therefore I cannot contact anybody to sort the problem out. I was hoping somebody might have a working copy of Convert and would be kind enough to send me a listing.

The other problem is that if I try to print labels more than one across, it will print only four labels.

LI Taylor
22 Ironstone Lane, Briar Hill
Northampton, NN4 9TR



"THEY WOULD GO AND MOVE JUST AS I'D DRAWN A CARTOON ABOUT THE OLD BARN"

Turkish delight

Thanks to *AA*'s Sue Taylor, I received the titles I ordered from your mail-order only two weeks after I dropped my letter in the mailbox here in Istanbul. Can't be better. I strongly recommend *AA* mail-order, especially to those living outside the UK who want to get their software in time.

In *AA* 18 you tell us to choose titles we want from a list. Can't we order any other titles, paying their normal prices, as before?

S Serdar Yörük
Istanbul, Turkey

You can. And by the way, it's Sue's policy to give prompt refunds if what you order is not available.

True ©onfession

The "School for scandal" letter by Guy Sanders (*AA* 19) reminded me of an experience at school. I always used to copy games and thought nothing about until I received similar treatment.

At Mirfield High there is a networked 480Z system. I was challenged to write a program to send messages between the machines; I did quite easily. But then some other pupils started fiddling about with the program. They used it to send abuse, and I got blamed. This annoyed me immensely, so I wiped the program off the disk, then they moaned and asked why.

So now I can understand how the professional software writers must feel when it takes some time to write a program. Mine took only about an hour. I felt like killing.

Intimations of mortality



The Amscene article "CPCs survive threat from Plus 3" (*AA* 20) should have ended with a question-mark, not a full stop. I am not getting at *AA*, but the article said nothing positive about Arnold's future and only cast doubt. It was "unlikely" that any of the machines would be dropped for a long time yet, due to overseas sales. Call me cynical, but this sounds like the state of affairs shortly after the 6128 was launched in the States. Amstrad assured worried 664 owners that it had no plans to launch the 6128 in this country. We all know what happened next.

Since the buyout of Sinclair, the CPCs, by far the better of the machines, have had the raw end of the deal. All the uncertainty hasn't been helped by the major "Amstradifying" of the Spectrum, first into the Plus 2 and now the Plus 3. As if this weren't insult enough, Amstrad stated the new "subsidiary" would be aimed at the games market while the mother company would aim at business. This leaves the CPC range, and especially the 464 (being that versatile) somewhere between the two categories.

The takeover of Sinclair immediately put the 464's future in doubt. Amstrad stated its commitment to the 464's continued existence. The uncertainty subsided, and not so long ago there appeared another good sign: there was an advert in *AA* for the 464. Hooray! Then comes the announcement of the Plus 3. All the uncertainty sufaced again, and this time there was no definite commitment as to the 464's future: "unlikely" isn't definite.

I own a 464 and I can't stand all this uncertainty. I, and my parents, bought a 464 because we thought, and still think, that it is an excellent printer and represents great value. What I don't get is how people ever thought of the 464 being discontinued, because compared with the Spectrum the 464 is by far the better.

When the issue first arose *AA* said a huge part of the CPCs' appeal was that they were both useful and fun, for all the family. Shifting Amstrad to business machines would destroy that. Also, Mr Sugar can't just write all 464 owners off as he did with 664 owners; there are just too many 464 users. I sincerely hope he is as decent a person as I believe him to be and that he isn't going to look only at the profit-takings. I have only one thing to say to him and that is: "Don't do it, Alan."

Paul Holdaway
Stockport, Cheshire

■ I wrote to Amstrad on the same subject. To my shock, horror and amazement, Amstrad replied!

The information which you have read in magazines about Amstrad stopping the manufacture of this computer is press speculation and cannot be regarded as fact. The CPC 464 is a very popular computer for home users and as such, at this present time, we have no reason to stop it being manufactured.

We apologise if in the past you have not had a letter answered. Please be assured of our interest in our customers, who can ring – (0277) 23 0222 – or write – Amstrad plc, 169 Kings Road, Brentwood, Essex, CM14 4EF – and we will do our utmost to assist them.

I still think the thought of axing the CPCs is there at the back of their minds.

Stephen Parkinson
London N16

Address unknown...



I don't copy any more. I guess some people will be thinking, "What a prat!" Well, I don't care. It's wrong and should not be done.
Jonathan Maney
Mirfield, West Yorkshire

Deed poll or foul deed?

I am really grateful for Richard Nicholson's *Druid* poke (*AA* 18). It makes the game so much less frustrating. What a pity that you misprinted his name. It should be spelt J-u-s-t-i-n G-a-r-v-a-n-o-v-i-c (see *Amstrad Computer User*, Dec 86).
Colm Buckley
US Embassy, Dublin

You put it in diplomatic terms. We have less pleasant things to say about cads who rip off copyright material from this or any mag. Our apologies to JG and ACU.

Bare bumper

How about, please, some calendars or posters if not t-shirts or similar? Anything to brighten up the wall, bare except for the *Elite* ship ID chart and the quick key control guide. Everyone else, even Spectrum owners, has *C+VG* posters and *Zzap* calendars. *AA* is great, but why not give us something to admire, like RpM's portrait or Toot's lair in technicolour? Liven up your image!

Does Toot have a wife or girlfriend? Tootarina?
Mark Dowling
Mitchelstown, Co Cork

We keep saying you can get bumper stickers from that motoring organization. As for Toot, we'll just put this on the page and see if he answers for himself.

Scottish judo fan

Although CB's review of *Uchi-mata* was fair, it should be pointed out that people play martial-arts games based on karate and kung-fu, of which they have no knowledge. So why not judo? It is more complicated and has more terminology but is just as enjoyable, and as a sport it is a great way for both sexes of all ages to keep fit and be able to defend themselves.

I have copies of out-of-stock issues 13 and 15 as well as number 1, and am willing to swap each for an original game. Anyone interested send a list.
Derek Brebner
33 Sanderson Ave
Irvine, Strathclyde, KA12 8DU

Unread in Reading

A spreadsheet for the 6128 called *Matrix* (*AA* 19) sounded perfect for my needs, so I rushed out to buy it. I simply could not find the program locally, so arranged a trip to London – still no luck. I finally tracked Audiogenic itself down, in Theale, which is close to where I work in Reading, and although they could not supply from their office they arranged for a copy to be sent from their warehouse.

Why do shops not have such a great program, especially after your review? Many said they had not heard of it, or that they could not get it, yet Audiogenic said most of their distributors had it in stock, or they could supply shops direct.
Barry Gregory
Reading, Berks

It's a fact of life that serious software doesn't sell as fast as games and therefore fewer shops stock it. "Could not get it" sounds weak, however. But so does eyesight in Reading! This is exactly why we printed Audiogenic's telephone number on the review. (We now publish addresses as well, for the sake of readers' phone bills.)

No bang, no whimper

How annoyed I am about what happens at the end of games – or the lack of what happens. I have finished *Ikari Warriors, Space Harrier* and *Heartland*. All of their endings are rubbish and very short. I think after paying £15 for a game and playing it for hours I deserve at least a little tune. One game that deserves congatulations is *Highway Encounter* – the ending's brill.

Please put me on your penpal list: interested in swapping disk pokes with anyone, anywhere.
Ian Culpin
26 Glen Iris Ave
Canterbury, CT2 8HP



" I LIKE GAMES WITH A GOOD ENDING... "

What a difference

Paul Page said (Hot Tips 19) that if you typed in my line with just 38 minus signs

```
PRINT 365-(- ... -5)
```

the answer is 360, but when typed with 39 minuses it gives 370. This is because of simple mathematics: 5 – 3 = 2 but 5 – –3 = 8. Two minus signs combine to make a plus.
Gavin Manning
London E11

In other words, the difference between 5 and 3 is 2, but the difference between 5 and –3 is 8.

Appuling and origanal

Head over Heels as Mastergame (*AA* 20) is appuling you should of given it an *AA* Rave at the most. 3D games have been done to death. *Knight Lore* was possible the first and the came *Alien 8* then all the other clones which get better graphicly and less and less origanal.

What American football team do you support? I support Los Angeles Raiders.
Your most avid reader,
Barry North
Littlehampton, W Sussex

Will you be avid or livid if Bob stands up and leads a cheer for the Miami Dolphins?

Tovarishch!

The scribe with the mysterious signature in Rear View 20 must be an employee of Gremlin Graphics and a *Thing on a Spring* addict.

I was horrified to see Amstrad illicitly purging the initials AMS. They belong to me as well the redoubtable Mr Sugar. Even worse, our birthdates are the same: 24 March. Fortunately, I must be at least 20 years younger.

To avoid accusations of plagiarism, I am going to rename myself Mikhail Sergeyevich Gorbachov, undergo plastic surgery, carry cyanide tablets at all times, throw away my 6128 and buy an Atari ST. Then maybe I will be safe from lawsuits!
Alastair M Scott
Grangemouth, Stirlingshire

Aha! This explains a point we've pondered for months. Could this be why Advanced Memory Systems calls its product the AMX mouse – the sacred sweet initials!

Fine form

I recently played Firebird's *Thrust* on a Spectrum (rubbish computers). I liked it so much that I tried shops, looked for an advert in old *AA*s but could find it in neither. Could I get it from you? How?
Keith Copping
Wisbech, Cambs

Yes. Use the mail-order form near the back of the mag.

Penpals, please

- **Carl Jones, 32 Heol Pen-y-Scallen, Loughor, Swansea, SA4 2SE** – 14, 464.
- **L Swanwick, 12 Wackrill Drive, Lillington, Leamington Spa, Warwickshire, CV32 7UP** – desperate for *Spellbound* help. Anyone live near him? (her? We don't know what "L" stands for.)
- **John Colbron, 7 Arthur View Cres, Danderhall, Midlothian, EH22 1NG** – 15-year-old gamester; Laser Basic
- **John Lavelle, 47 Newton Rd, Strathaven, Lanarkshire, ML10 6BP** – a (former) Laser Basic fan
- **Lee Gillie, 1 Oak Place, Mayfield, Dalkieth, Midlothian, EH22 5LL** – *Miami Vice* victim, age 13

Some user groups

Send a stamped self-addressed envelope if you contact any of these:

- **Ben Walsh**, 22 Palmerston Gardens, Dublin 6
- **Sutton Amstrad User Group (Notts)** meets Fridays 7:30pm at the cafe, 44 New Lane, Stanton Hill, Sutton-in-Ashfield, NG17 3GD. ☎ PC Sloney, Mans 51 6570.
- **National Independent Amstrad User Club**: Derek Vernon, 1 The Middle Way, Wealdstone, Harrow, Midx, HA3 7EG ☎ 01-863 0906; Micronet 919 999 750

Lost in time

Pleeeease heeelllp! I beg someone to tell me whether there is meant to be an end to Amsoft's ancient game *Roland in Time*. It has been bugging me for ages. Every time I get all 143 crystals, and nothing happens! I've tried everything. Save my parents the bother of having to pay for a funeral!
P Barone
Latimer, Bucks

We seem to remember 153 pieces (are we pulling your leg?) and a final message telling you to watch out for the next in the nauseating Roland series. "These readers," says Bob, testing Arkanoid, *"that have nothing better to do than sit around playing games!"*

Convert

I own a 48k Spectrum at the moment (don't groan) but am thinking of buying an Amstrad computer. I can afford only £250 tops. Which would you suggest?
A Brinkman
Goole, N Humberside

A 464 will cost you £200 with green-screen monitor, £300 with colour. The disk-based 6128 sells for £300 and £400 – with £1 change in each case. Some mail-order catalogues, such as Kays, Grattans, Great Universal and maybe even Argus, will sell them with a modulator (to connect to your TV) rather than monitor, for less money. Or you could look out for a good second-hand one.



Support for Reaction

Thanks, Peter Newman of Co. Tyrone, for tipping the 464 tape-deck (Reaction 19). When my deck first went faulty, I dismantled it but still couldn't find the problem. I never thought to put it on its end. After this I noticed a small bit of metal at the back of the tape



"AND NOW JANET WILL SHOW US HOW TO MAKE A JOYSTICK OUT OF A WASHING-UP LIQUID BOTTLE AND SOME SMALL BITS OF PAPER..."

unit. I bent this forward a bit so that it presses more firmly against the tape, and now everything works perfectly.

I also had a problem with my Konix Speedking joystick. The supports went, just as John Lawless described (Reaction 20). When I opened it, I found one of the tiny supports had snapped off. I solved the problem quite simply: first I broke off the remaining plastic supports, then rolled up a small bit of paper and stuck it in where the supports were. Close it up and voilà it works perfectly. And the paper will never break.

Ian Finnerty
Co. Roscommon, Eire

If your stick's broken and the guarantee is expired, don't be afraid to open it up and see what's wrong. These supports do seem to be the one weak point with the Konix joystick. But Konix itself can be helpful, as we told John in Reaction 20.

Tartan Toot



What is the cheat mode for *Spindizzy*? I have tried just about everything possible short of opening the disk and looking for words on the floppy. If you do this I will make sure the person who punches my keys never cancels his subscription.

Was that brillo game *Karl's Treasure Hunt* (Software Projects – on Super Savers label) ever reviewed by *AA*? This is the best platform game I have loaded. I can't wait till the keypuncher plays it again. If you load it and leave it alone for a while, a stupid credit message floats across the green-screen, all about David Bowie, après-ski boots etc.

Oh no, the keypuncher's back and he's going to load *Starglider*! I can hear the joystick whimpering at the thought of it. I'll have to go. Keep up the good work.

Arnold McAmstrad
Kinross, Tayside

Tell your subscribing keypuncher to look in issue 9 or the Cheat Mode book (see special offers – advt.) for a Spindizzy poke. A map appeared in issue 10 but, unfortunately, not in the book because it was impossible to reproduce the original colour.

The brillo game wasn't reviewed because it was old even before AA 1. RpM, however, admits he owns it. At first he said, "It's horrible – I hate it," but then agreed it has a lot of locations. He'd rate it 52% overall now, but might have given it more in its own day.

The shooting kid

Can you recommend a real good, simple shooting space-invader game suitable for an eight-year-old who is new to computing?

JM Lea
Wellingborough, Northants

Try Classic Invaders *(reviewed in AA 10, 48%) or* Classic Axiens *(AA 16, 65%). Both from Bubble Bus.*

Seasick

Why does Ocean bring out rubbish games like *Knight Rider* and *It's a Knockout* then two brilliant games, *Short Circuit* and *Head over Heels*? If they can see the difference between good and bad games, why release the bad ones? The same could be said for US Gold. It brings out terrible games like *World Cup Carnival, Beach Head II* etc then the masterpiece *Gauntlet*. It all adds up to varying standards and discourages people from buying their games. I for one won't buy a game from Ocean or US Gold until Sir Bob reviews it.

These companies (and one or two others) should take notice of Elite, Firebird, Gremlin, Mikro-Gen and Durell: all these consistently bring out very good games without all this hype nonsense. Although advertising is necessary to sell a game, Ocean always goes over the top: *Street Hawk* was advertised for two years. I would not have minded if it was superb, but it is not. So take heed, Ocean.

Matthew Levy
Finchley, London

You've said it, Matt! And now Neil backs you up with figures:

■ I compiled a survey of 19 top software houses' latest releases – all games reviewed from August 1986 onwards. To find the average mark for each, I simply averaged all their games' *AA* ratings. (Final two columns show Mastergames and Raves.) Therefore this survey reflects not just my personal opinion! So here are the results: the software houses charts:

1	Elite	89%	-	4
2	Activision	83%	-	3
3	Mastertronic	78%	1	7
4	Gremlin	77.5%	-	3
5	Codemasters	77%	-	2
6	Ariolasoft	76%	-	4
7	CRL	76%	1	-
8	Firebird	73%	2	4
9	Martech	73%	-	1
10	Piranha	72.5%	-	1
11	PSS	72%	-	1
12	Infogrames	69%	-	-
13	Electric Dreams	67%	-	3
14	Argus Press	66%	-	-
15	US Gold	65%	1	3
16	Imagine	64%	-	1
17	Virgin	60%	-	1
18	Ocean	55%	1	2
19	Amsoft	46%	-	-

No surprise that Elite came top. Although it released only four games, three of them were over 90%. Firebird would have been much higher if it hadn't released the diabolical games *Helichopper* and *Star Firebirds*.

And guess who comes in 18th and 19th places? Ocean releases naff (and I mean really naff) games like *It's a Knock-out*, but *Head over Heels* is better. As for Amsoft, I'm astounded that Amstrad, a company which produces such top-quality hardware, churns out consistent trash!

Neil Selwyn
West Lulworth, Dorset

Zeal-ous readers

Your mag is the best on the market. None of the others get close. I'm thoroughly hooked. Only trouble for us New Zealanders is we miss out on all the competitions and freebies. It takes your mag four months to reach my little town, so by then all the prizes have been awarded about two months ago. Could you have four- or five-month-long competitions so we overseas people can win something, please?

The game prices over here are flabbergasting. In the year I've had my computer I could afford only one game.

Can we Kiwis send in special-order forms which would be four months old by the time we get them?

Brent Ueator
Levin, New Zealand

■ I am an Amstrad 6128 owner and I live in a tiny little country just east of Australia.I love *AA* and I think it is the best Amstrad magazine around. I agree with my friend Shane Morgan (Reaction 15) on how your magazines arrive months late and all the news is old, but he was exaggerating the price. He said it costs £3, but it's really about £1.90, surface mail.

I can't afford a subscription but I can buy a copy airmail every so often. Please tell me your overseas rates for single copies direct from you.

I typed in your *Sound Sampler* program. It's great, but is there any way of removing all the static?

Chris Gin
Auckland, New Zealand

Someday there'll be an AA distribution service in Kiwiland like the Dutch one detailed on the Line-up page.

Meanwhile, in a fit of fine mood, the Future Publishing comptroller fiscal declares we're charging £21.50 – just £5 more than the inland rate – for overseas subscriptions, airmail. Otherwise readers outside Europe are told to add £2 per mail-order item: that would mean £3.25 for the current issue as a single. I'd forget this and subscribe quick. Or go halves with your friend.

For a listing, Sound Sampler *is as good as you'll get for audio output. The Amstrad's sound chip and data-cassette input are designed to limit themselves to a narrow frequency range. You'll get best results with sounds that are loud and high.*

Seeing green

I bought my Amstrad for word-processing and so got a green-screen monitor. I read all the green-screen boxes in games views, but unfortunately sometimes these comments aren't very helpful. Very few games have a green-screen option. Many games have a redefine-key option, so why not a redefine-colour option too?

David Jones
Wormley, Herts

This arrived as a too-long handwritten letter: howcum you aren't using your word-processor, then? Old Amsoft games used to ask if you were using green screen or colour monitor. You're right: it would be thoughtful of current programmers if they made allowances for mono.

Future doesn't answer

There have been platform games, maze games, adventures, sport simulations, space games, chess, cluedo, ... Now I wonder if you could tell me what sorts of programs you think will be sold in, say, five years' time. They say technology is leaving people behind. Do you agree or do you think the software houses are really using computers to their limit?

No such zone...

If you don't answer this letter perhaps some of the millions of readers out there would write and say what they think.

Paul Page
Solihull, West Midlands

Okay, we're not answering this letter.

Big vs Best

How can large shops such as WH Smith charge excessive amounts for games, whereas companies selling discount software, notably Best Byte Software, charge much less? An example: Rainbird's *Starglider* costs £14.95 at Smiths, whereas Best Byte charges only £10.80. Since Best Byte's first advert six months ago I have saved about £40 on software.

Richard Berge
Camberley, Surrey

Good question, especially since Best Byte's prices include first-class postage. To be fair, £14.95 is the recommended retail price for this game. Perhaps you are paying the £4-odd toward lighting, heating, advertising and pension funds - general overheads.

A boot for Gold

I went into Boots at the beginning of March and saw *Leaderboard* being demonstrated on an Amstrad 6128. As magazines get review copies some time before they are available in the shops, I expected to find a review in *AA* 20. It's in the software houses' own interest to get as many people as possible to hear of their new games, so I don't see why they don't send every game they market to the computer press.

One last point: where is David German's *Speed King* poke for which he was a runner-up in the November issue?

David Marek
Edinburgh

Leaderboard *is a sore point. We certainly agree with you that it is in US Gold's own interest to get review copies to us quickly, and we pestered repeatedly for this one. Perhaps we should get a season ticket to Boots in Edinburgh.*

There's danger of a cave-in if Bob Wade goes mining for David German's poke in two huge boxes of loose paper - we may never see him again. Could he send a repeat, please?



"THE AA MAIL ORDER SERVICE, I PRESUME"

Paperboy promising

Why on earth haven't you mentioned *Paperboy*?

Mark Price
Willesden, London

Because Elite hasn't released the Amstrad version yet. But you'll be glad to hear that program development is nearly complete, according to David Baxter of Elite. "We're very pleased with it - it should be the best version so far." The Amstrad conversion is being done by Mark Haig Hutchinson, who also did Highway Encounter, Alien Encounter *and* Tornado Low Level. *Release date is "soon", but believe it when you see it reviewed.*

■ Why do discount software vendors such as Shekhana and K&M Computers include *Paperboy* in their lists? I recently placed an order. After three days I received a letter which gave a very feeble excuse. I then rang Elite and was told the Amstrad game had not yet been published. I then got very angry and wrote this letter. Please publish it so that these companies hear my complaint.

Michael Smith
Biddenden, Kent

K&M explained to us that Elite had told them Paperboy would be dispatched by the time the ad appeared. They won't list it in their next ad, and will add a line saying to ring to check availability.

This is the mail-order advice we've often given: before you send money, ring to check availability.

Mega-butterup

First, to guarantee the printing of this letter I'd like to say that your magazine is...

Tommy Daffin
South Brewham, Somerset

Meganificent. I'll stop right there.

Helpline

Still the postcards and backs-of-stuck-down-envelopes are rolling in: more eager Amstrad experts volunteer for the *AA* Helpline, ready to offer assistance to readers having problems.

If you too feel helpful, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please observe the singular stationery stipulation to simplify administration here in the office. Send to: **Helpline, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ.**

If you are asking for help, make direct contact with the appropriate Helpliner - don't pester your usually-patient (but harassed) editor. Writing them, DO include a self-addressed stamped envelope for the reply; otherwise you won't get one. And if you telephone, stick to socially acceptable hours!

Get Dexter, Robin Hood, Terra Cognita, Star Firebirds, Trailblazer, Fighting Warrior, Druid, Beachhead, Tempest, Ghosts'n'Goblins, Dynamite Dan II, Match Day, Knight Lore, Dragon's Gold, Thrust, Scooby Doo, Avenger, Bruce Lee, Match Point, Starglider, Classic Axiens, Green Beret, Frank Bruno's Boxing, Killapede, Who Dares Wins II, Sorcery, Seabase Delta, Revolution, Thing on a Spring, Starstrike II, Bounder, Splat, Xeno, World Series Baseball, Defend or Die, Manic Miner, Pingpong, Football Manager, Last V8, 180, The Apprentice, Finders Keepers, Pipeline II, Shockway Rider, Locomotion, Zub, Kane, Conquest, Knight Tyme, Radzone, Dynamite Dan, Nick Faldo's Golf, Everyone's a Wally
John Lawless jnr, 75 Leix Rd, Cabra, Dublin 7

Adventure writing -*GAC*, *Quill* etc. Also play-testing and evaluation, program listings etc. Anything at all to do with writing adventures!
Pat Winstanley, 13 Hollington Way, Wigan, WN3 6LS

Space Harrier, Ikari Warriors, Ghosts'n'Goblins, Bombjack I, Commando and all Elite games: *Batman, Frankie, Gillan's Gold,* most Ocean games, *Gunfright, Alien 8, Thrust I, Flyspy, Molecule Man, Caves of Doom, Spindizzy.* Adventures: *Hobbit, Jewels of Babylon, Worm in Paradise.* Has typed in all the type-ins.
Frankie, 103 Strathaven Road, Lesmahagow, Lanarkshire, ML11 0HD

Batman, Ikari Warriors, Jack the Nipper, Rambo
Si Carter, 6 Laurel Grove, Hoole, Chester, CH2 3HU

Message from Andromeda, Terra Cognita, Thrust, Mr Freeze, Spellbound
Darren Jackson, 85 Fitzherbert St, Warrington, Cheshire, WA2 7PN

Using and programming CPM, Basic, graphics, programming adventure games, data or program security methods - 6128
Cormac McGaughey, 1 Glenariff Rd, Cushendall, Co Antrim, BT44 0QY

Basic, Forth, assembler, firmware, graphics, digital electronics - 664
Tim Mo, 180 Brookland Terrace, New York, North Shields, NE29 8EP

all CPC chess programs, *Tasword 6128*, DMP 2000, *Printmaster, Printer Pac II,* Beebugsoft *Toolkit*, programming with RSX commands
Alastair Scott, Mylne's Court, Lawnmarket, Edinburgh, EH1 2PF

tape-to-disk transfer, infinite lives, maps, adventure solutions, French games, Amstrad program guide
Phil Maxfield, 40 the Brow, Brecks, Rotherham, S Yorks, S65 3HP ☎ (0709) 54 5055

Basic programming (mainly utilities but some games)
Mark Bonshor, 4 Stoop Lane, Quorn, nr Loughborough, Leics, LE12 8BU

music, keyboards etc (retired professional organist)
Mr W Dallywater, 7 Hillman Dr, Inkersoll, Chesterfield, Derbs, S43 3SW
☎ (0246) 47 3056

Basic programming, useful calls and pokes, hacking, tape-to-disk, *Melbourne Draw*, supersprites, repairing joysticks, tape loading, Basic scrolling messages, sprites in border, ripping out title pages, music and effects from games
Carl Harker, 38 Lyndon Ave, Blackfen, Sidcup, Kent, DA15 8RJ

Basic, Logo, Laser Basic, CPM, Fig-Forth, simple machine-code, *GAC*, disk or tape loading, tape-to-disk
Edward Reid, 157 Ladyloan Ave, Drumchapel, Glasgow, G15 8RX

bridge clubs - scoring on *Mitchells*, aggregate and Howells, name and address lists, library books, master points (calculation and certificates) - all CPCs using CPM for *Masterfile* and *Superscript*
FB Brighton, 30 Ranmoor View, 410 Fulwood Rd, Sheffield, S10 3GG
☎ (0742) 30 7555

Basic programming, printing problems (on DMP 2000), loads of games, pokes, maps, type-ins, machine-code
Guy Sanders, 270 Willesden Lane, London, NW2

any aspect of writing a fanzine
Richard Hannah, 48 James St, Helensburgh, Strathclyde, G84 8XG ☎ (0436) 3310

Basic, sound, graphics (animation and collision detection), interrupts, tape and disk filing, printer commands, *Protext* (will print listings for 35p + 3p/page + sae; screen dumps for 75p + sae; phone for details) - 464
Gavin Manning, 20 Windsor Rd, Wanstead, London, E11 3QU ☎ 01-989 8843

■ **Cameron Kane** of Glasgow regrets that due to work pressure he has to withdraw his offer last month to help.

C&G *747*, HNC Computer Studies, serious users
John Wharram, 61 Silver Crescent, Chiswick, London, W4 5SF

machine code, CPM, hacking - 6128
Tony Hoyle, 11 Dorset Rd, St Annes, Lancs, FY8 2ED ☎ (0253) 72 7368

Basic, machine code, especially graphics - 464
PJ Higginson, 194 Turton Rd, Bradshaw, Bolton, Lancs, BL2 3EE ☎ (0204) 58907

Basic, some machine code (will print listings for 50p + 5p/page +sae) - 6128
Andrew Smith, 5 Station Rd, Foggathorpe, nr Selby, N Yorks, YO8 7PU
☎ (0757 85) 540

AMSCENE

Monthly update on what's new on the CPC scene

Pagemaker: The bug stops here

by Jim Nagel

Stop press! Would-be desktop publishers will be glad to hear a hassle-free version of *AMX Pagemaker* is on its way.

Advanced Memory Systems stopped advertising the Amstrad CPC version after angry customers found it plagued with bugs. The new release will have totally revamped software with more features, new packaging and a new title: *Stop Press*.

Frustrated owners of the glitch-ridden *Pagemaker* that was released in January will be able to swap it free for the new version.

And by way of apology to the 3,000 of them, AMS will offer a £15 discount on *Extra Extra* – which is an additional package offering 25 new fonts and 300k of clip-art on two disks.

Normal price for *Extra Extra* will be £25, but customers returning a CPC *Pagemaker* package (version number below 1.0) direct to AMS with £10 will receive *Extra Extra* as well as the new *Stop Press*.

"I think that's a good offer to people who have put up with the situation," said AMS managing director Nick Pearson. "We are in danger of losing our reputation – and we've had a very good one. This product has taken a long long time to develop, but it is a very good product."

More than 10,000 of the original BBC Micro version of *AMX Pagemaker* have been sold since it came out in October 1985. "In fact the CPC version is better. It has more characters per line and the facilities are better. It's just that some bugs crept in, or weren't sorted out."

Trouble started, according to *Pagemaker's* original designer, Alex Blok, when the management of the firm that was supposed to convert the software to the Amstrad CPCs decided to ignore the designer's specifications for three separate modules – definer, previewer and processor – and merge them into one. Naturally such a major change brought unsuspected bugs. "I think it's time the customers were told the whole story."

The bugs – such as crossheads scrolling if you define a graphics window and scroll the page – were discovered only after that firm, Cygnet Computer Consultants of Peterborough, handed the product over to AMS. Cygnet made corrections and delivered a revised version. More bugs were born.

But Cygnet has now ceased trading.

However, Gary Allen, who was Cygnet's programmer on the project, is now finishing the job free-lance, after a fresh start in close collaboration with Alex.

"Basically all the facilities that don't work at the moment will work. I debugged it myself," said Alex, who works from home near Newbury, Berkshire.

"It will be a better program than at present. For instance, at present there are three fonts in memory; the program will now display the font name. It sounds a little thing, but if you've used it you'll appreciate it.

"My philosophy is that the designer should be responsible. He has to think about how the user is going to work with it. And I think software should look as good as it performs."

Why the name change from *Pagemaker* to *Stop Press*? In one word, Aldus: a bigger American firm chose the same name for a similar program.

Alex, calling his company Tecnation, designed the BBC package in 1984, "before desktop publishing existed." His friend Neil Lee was the programming half of the Tecnation team. Going to university prevented him from working on the Amstrad version – which was how Cygnet came in.

"We considered registering the name *Pagemaker* in 1985 but were told it was a word like automobile. Since then Aldus has splashed it all over. A court case is just not worth the effort."

So all the versions, including the BBC Micro version, will be relaunched as *Stop Press* and the 25 new fonts and 300k of clip-art on two disks will be *Extra Extra*. For the CPCs, the two packages will normally sell at £49.95 and £24.95.

AMS is also revamping its famous AMX mouse, and will offer bundles containing the Rombo video digitizer at bargain prices.

The CPC, PCW and IBM versions of *AMX Pagemaker* were originally to have been launched a year ago – on 31 May 1986. The Amstrad PCW is at last almost ready for release. But the IBM version, which was to have been much more upmarket, has been shelved.

Rights to a Commodore version have been sold by AMS to the American software house Electronic Arts – a vote of confidence in the product. Launch was scheduled for the end of May.

Amstrad Action passed on copies to Alex of all readers' letters on the *Pagemaker* subject. He was surprised there weren't even more complaints. "Yet the thing that comes through," he said, "is that people are still excited about the package and look forward to the finished version."

Buffer it up

A 64k centronics printer buffer costing £50 – a fraction of the price of current buffers – is available from Frontier Software. The MicroStuffer, recently imported from the US, will work with most computers. It comes with battery backup, connecting cable and multicopy facility.

And according to Andy Bennett of Frontier, it "continues printing even when the computer is switched off." Andy can be contacted on (0423) 67140.

★

Baddoiinggg

Bounder bounces back in *Re-Bounder*. The addictive sequel from Gremlin will sell for £10 on cassette and £15 disk. You must boing through 18 levels of colourful hexagonal slabs watching what you hit and blasting the obligatory aliens.

★

Revolting Aliens

Alien Evolution, another £10 game from Gremlin is due, with a 3D perspective, monochrome graphics and scrolling. The scene: aftermath of a nuclear holocaust. The place: Earth's barren dusty surface. The hero: Cybourg. The task: exterminate all the aliens populating Earth. The wait: June.

The sound of Siren

Siren Software is entering the hardware market with a bang. Its Soundblaster add-on will give your Amstrad stereo output from two high-quality pod speakers.

Retailing at £30 the Soundblaster amplifier is no larger than a cigarette packet. The attached speakers consist of a quality 3-inch woofer, 2-inch mid-range and a tweeter. Guaranteed to blow the roof off. The Soundblaster comes complete with a pair of Walkman-type stereo headphones. More from Siren on 061-228 1831.

Show goodies

July 10 to 12 are the Amstrad Show dates at the Alexandra Pavilion in London.

Already we have promises of new items from Siren Software: a disk utility that Siren's Simon Cobb of Siren claims "really is the business" and an eprom programmer. The eprom programmer will come as a no-frills version and as an upmarket model that can program virtually anything.

Simon would tell us no more, saying all will be revealed at the show, but you could always pester Siren on 061-228 1831.

Silicon Systems is also getting in on the act. An eprom programmer – again with no pricetag so far – is promised. So is a Midi interface and software. The software will currently handle the DX7 and Elsonic 7000 synthesizers. Tim Kay of Silicon is interested in hearing from you: what Midi instruments would you like the software to handle? Don't phone us, phone Silicon on 061-848 8959.

Archie for Arnold

You will soon have the opportunity to situate Archie next to your CPC computer.

Archie, designed by Oxbridge Technology, is a mini-robot arm – similar to its more sophisticated industrial brothers. It is primarily aimed at the educational market. But the company, based in Milton Keynes, says that several high-street shops expressed an interest, so you may see Archie displayed around town.

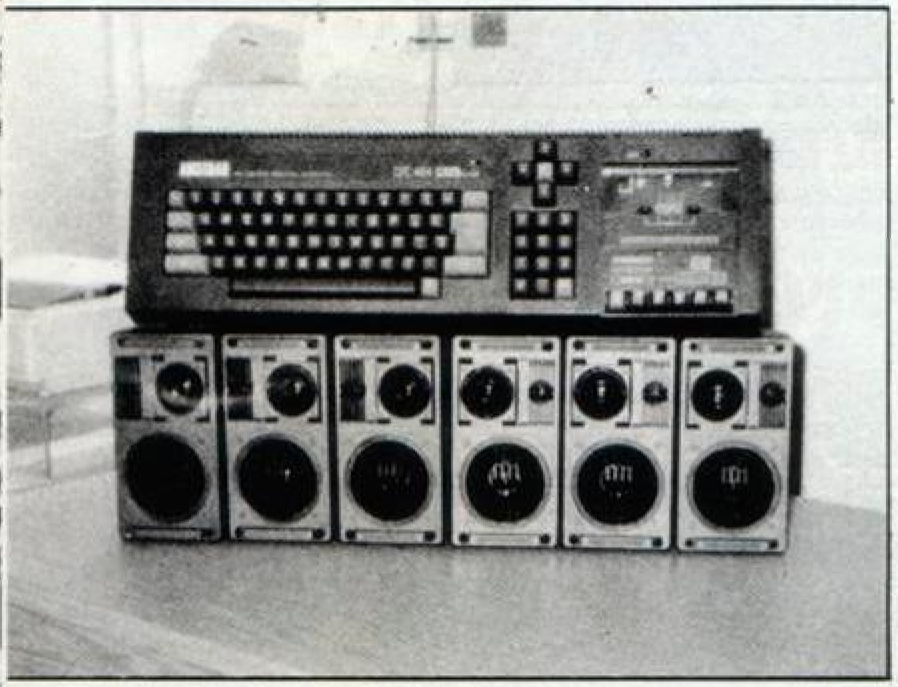
Archie is supplied as a £220 kit. The blurb says it can be assembled by anyone with screwdriver and pliers. It connects to the computer's serial (RS232) port and comes with user-friendly software. Archie the arm can safely hold objects up to 250 grams in weight.

The technical specification runs something like this: five axes including a gripper, maximum reach 350 mm, contains a Z80 processor, 2k of ram and an 8k eprom. For further information ring (0908) 31 4626.



Double Gold

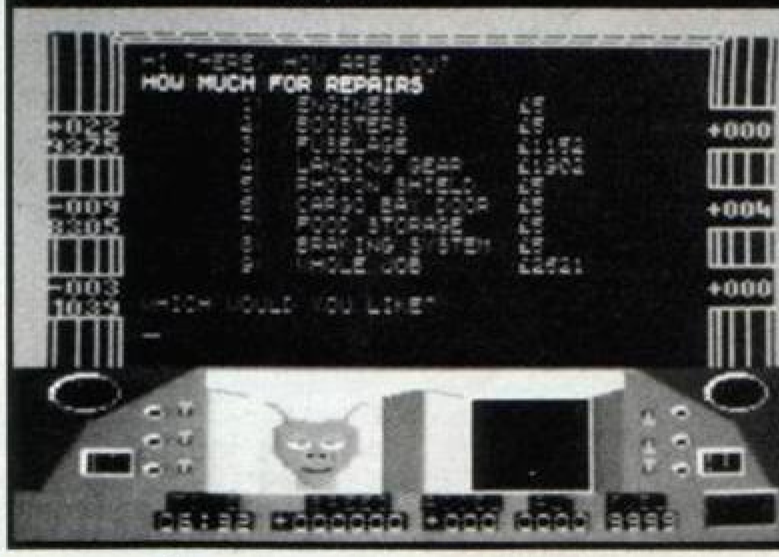
A new label from Incentive, Double Gold, will feature two Gold Medallion adventures for the price of one. The Medallion label was set up for the best adventures designed using *GAC* (graphic adventure creator). The first Double Gold adventure will feature Sharpes Deeds and Black Fountain, the second Top Secret and Mountains of Ket. Each will sell at £8.



Enterprise

The new game *Enterprise* from Melbourne House features – we have been told – 3D hidden-surface revolving planets, landing sequences like a flight simulator, fully animated intelligent aliens and 5.2 billion planets to visit.

Having unsuccessfully tried to scrounge money from the bank to set up your own business you opt for the life of an interplanetary merchant pilot. Your object is to scour the universe for treasures, blow away the bad guys and end up with enough dosh to live a life of luxury on Paradise Planet – Elite style, of course. Live out your fantasies at a price to be announced.



Save the world

"Flash! Flash! We have only 24 hours to save the world..." Yes, that old favourite, Flash Gordon, has reached the computer screen. Mastertronic is behind it.

The evil Ming has a missile targetted at Earth. You, under the guise of Flash, must stop the world being turned to pulp. The usual budget rate is being asked.

CPC warhead

High Frontier, a Star Wars game of strategy and nuclear warfare game, will shoot out from under the clouds late in June. It's based on the proposed American Strategic Defense Initiative, and you are in control: you must situate and deploy the weaponry as you see fit. Costs £10 on cassette and £15 on disk with a penny change.

Machine-code master

September will see a machine-code tutorial package for the beginner. It consists of a 235-page paperback book and a cassette. The course will take you from beginner level through to more advanced applications. £17.50 is the asking price. And Siren Software, 061-228 1831, is doing the asking.

It wasn't a world first

Last issue we published a type-in called *Card Trick*, stating it was a world first. How wrong we were. Many readers telephoned to say that articles on computer magic had appeared before. We even had David Hambly on the line. He is a professional computer magician and has appeared on several television and radio shows, not to mention in a host of magazines.



Number three

The third and final part in the Magic Knight trilogy, *Stormbringer*, is imminent. Another MAD game with a difference. It features two knights instead of one: the Magic Knight and the Off-White Knight. Due to a dodgy time-machine Magic Knight has split in two. Using the same Windimation system you must merge the two knights and finally lay Magic Knight to rest.

Master Mercenaries

We had an overwhelming response for the *Mercenary* competition. Prizes, kindly donated by Novagen, were a compact-disk player and 10 *Mercenary* t-shirts.

It was a hard job finding an outright winner, but in the end the judges chose Lance-Corporal Butler of the Catterick Garrison in North Yorkshire. His tie-breaker reads: "As a 21st-century soldier of fortune, I would need to be... a deserter because I will *still* be in the Army."

Here are the ten t-shirt winners and their tie-breakers:

- Paul Scott of County Durham: "... AAgresive, well AArmed and ready for AAction"
- Michael Bennett of Cleveland: "... fast, fearless but overall not CD-less."
- Anne McLevy of St Agnes: "... re-incarnated"
- Steve Hedley of Tyne & Wear: "... alert – the 21st century needs lerts"
- G Glover of Essex: "... exhumed"
- Stephen Harris of Hants: "... Money-oriented Endlessly Recovering Cash from Every New Ambitious Robotic Yuppie"
- Ronan McKenna of County Meath: "... a lot luckier than I am in these competitions"
- Daniel Purcell of Middlesex: "... an Awesome Master of Super Technology, Resilient And Daring"
- N Wells of Coventry: "... a sharp-shooting, laser-slinging son-of-a-gun"
- and last, but not least, David Hall of Manchester: "... sure Am-scene to have good Reactions and pass the Action Test."

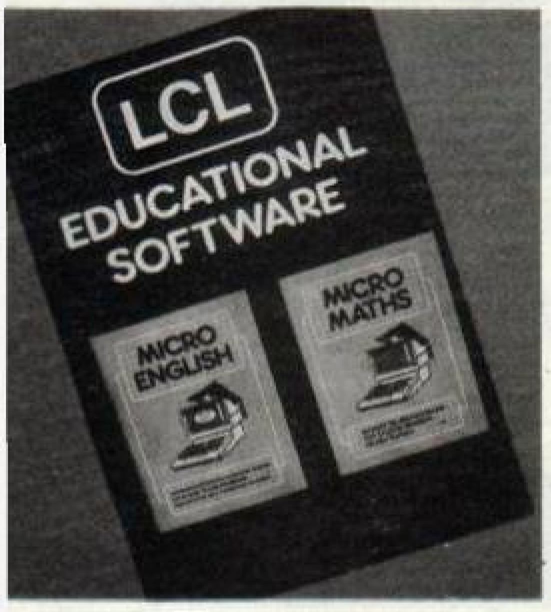
Greater than 706

The software for Megadrive from Silicon Systems has been enhanced. Previously each disk could be formatted to a 706k capacity. The new software allows a few more formatting options. Under CPM Plus or Amsdos you can have a maximum of 796k disk space with 128 files in the directory or 792k with 256 directory entries. Under CPM 2.2, 764k and 128 directory entries are possible. All operating systems will still accept the 706k format.

If you have a Megadrive, return the disk with the Megadrive software to Silicon for upgrading free of charge. Make sure it's the original disk you send. The address: Silicon Systems, Trafford Technology Centre, 43 Elsinore Road, Manchester, M16 0WG. Or telephone 061-848 8959 for further details.

When *AA* 20 reviewed the Megadrive, we failed to mention that it was possible to get a version with a switch to select 40 or 80 tracks. You can use this model part-time as a Megadrive and when necessary revert to a standard 40-track drive that can read PC disks. This hardware modification costs an extra tenner, bringing the price to £210. Included in the cost is IBM file-transfer software. More info from Tim Kay at Silicon.

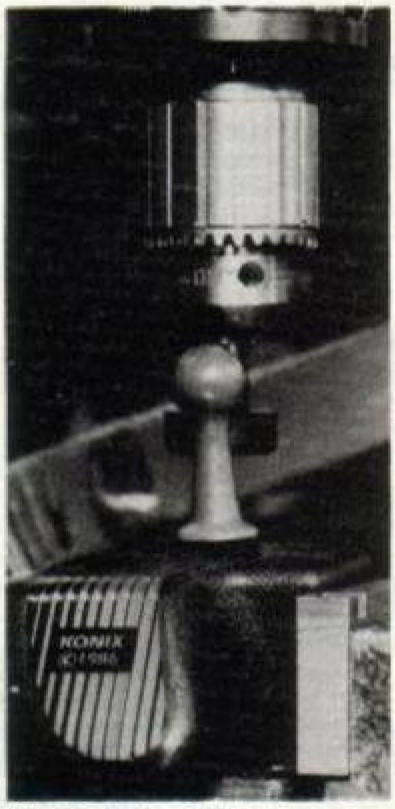
Maths for toddlers



LCL, renowned for GCSE and A-level maths courses, will soon release a primary maths course. It is claimed to be a complete course, taking children from age 4 through to secondary-school entrance. The package includes 35 programs divided into 18 lessons and tests. Topics include addition, subtraction, shape recognition, tables, division, weight...

Attractive animated graphics and sound will be used to entice the youngster. Available on either cassettes or disk it will retail at £24. Most major educational retailers will stock this product. If you have trouble obtaining *Primary Maths*, it can be ordered direct from LCL on (0491) 57 9345. Say you read it in *AA*.

A-waggling we will go...



The Konix Speed King has taken the rough treatment. For over three solid weeks – and still running – the Konix joystick has been subjected to the most gruelling of tests: it has been waggled constantly at 450 wpm (waggles per minute).

There isn't a human arm capable of maintaining this speed, so Konix employed a drill and lever.

The joystick is linked to a 6128 which has a test program running. This will indicate the precise moment the Speed King dies. The test has been running 12 hours a day, six days a week, for over seven weeks. That adds up to more than three weeks constant use – so far.

Version 2

HiSoft, a firm with *Devpac80* to its credit, is releasing the follow-up, *Devpac80 Version 2*. It retains all the popular features of the original, but has powerful new functions and is much faster.

Version 2 allows you to assemble to a file, which means machine-code programs can be linked together. You can link files from ProFortran, ProPascal, CBasic and many other HiSoft products. Running under both CPM 2.2 and CPM Plus, *Devpac* produces the standard executable

The new *Devpac80* debugger contains the standard single-step and multiple-breakpoint functions. Updated options include powerful conditional breakpoints and watchpoints. Rom code can be single-stepped through, memory banks switched and simple program profiling is possible.

It costs a bob under £40 from Hisoft, telephone (0525) 71 8181.

Master Gold

Mastertronic and US Gold have signed a multi-million pound deal. Mastertronic is to market and distribute US Gold's budget label, Americana, throughout Europe. Over 50 titles at £1.99 and £2.99 will shortly be introduced.

Arabic for Arnold

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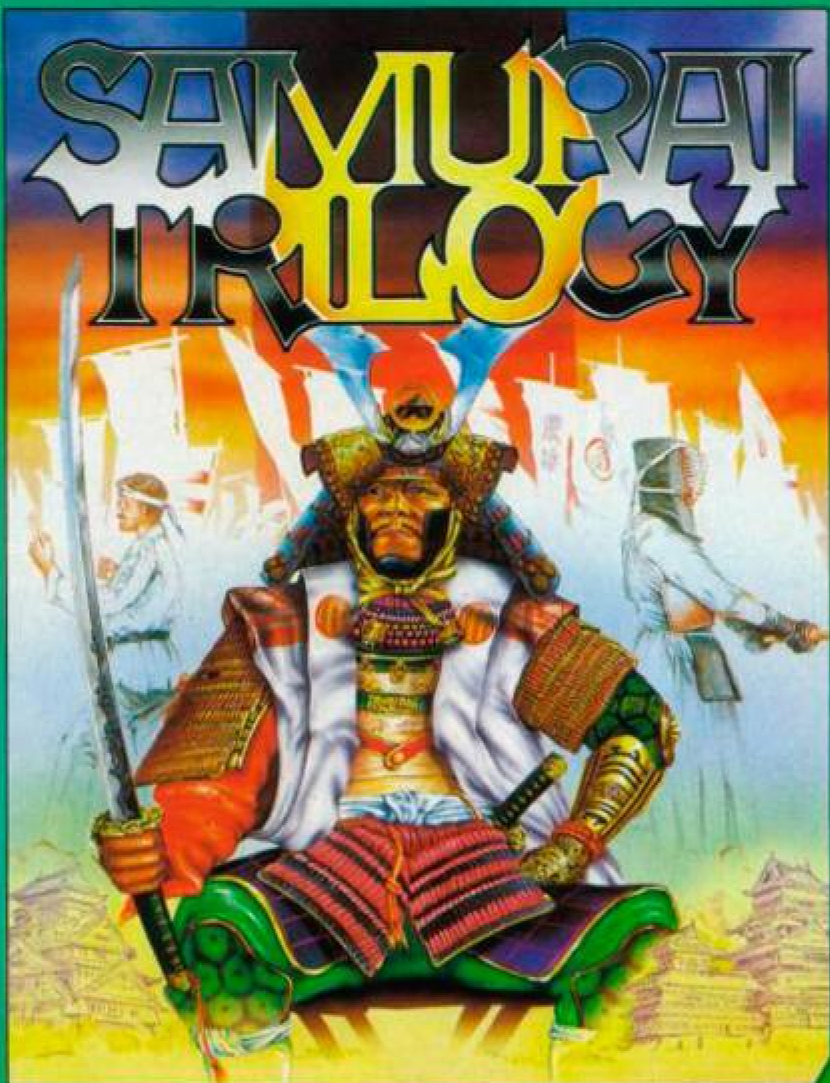
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Bug-off

You've typed in the listing and it doesn't work. You've spent hours scanning it and can't find any errors. You've had the whole family read the listing to you while typing it in. It still doesn't work. You've put a rope around your neck and are about to kick the stool... Stop! First take a look at this article. It gives you hints on finding those elusive bugs and points out ways to avoid making mistakes in the first place.

Why won't it work?

When you get "Syntax error" or a similar message the first thing you tend to do is blame the listing, saying it is incorrect. More often than not you'll find, if you re-check your typing, that the error was of your making. True, there are occasions when printed listings are incorrect, but very rarely.

If you are copying a program from a magazine or book then here are some points to beware:

- copy exactly what you see
- take care with your spelling
- watch punctuation
- don't leave lines out
- make sure spaces are in the correct places
- assign variables correctly
- don't confuse letters with lookalike numbers.

Copy correctly

It is very easy to type in commands, numbers, variables, data or anything else incorrectly. Arnold understands only a limited vocabulary of commands. If you invent new words you'll get the reply "Syntax error." You get similar rude remarks if you splice two commands together or leave out spaces or hit a semicolon instead of a colon. It is so easy to fool your computer that you must be extremely careful what you type in. For example, the innocent-looking line:

```
10 IF B=0 THEN PRINT a$;" "; ELSE GOTO 80
```

First point: don't alter the line number (or for that matter any part of the program). If you do, then there's every chance that the program will not operate properly.

Notice the statement `B=0`. Certain letters and numbers, on some printers, look deceivingly similar. Confusing Bs and 8s, Os and 0s, ls and 1s is very common. Type slowly, and if you're not sure whether a character should be, say, A or B then mark this down on a piece of paper. First try one character. If an error results use the other.

Use spaces. It is better to have too many than too few. This is the only way the computer can distinguish between one command and another. Remember every command or statement you use must have a space either side of it. If you leave out spaces, for example, and type `IFB=0` then, you've guessed it, "Syntax error" will pop in for tea. The same happens when you join two commands together, such as, `THENPRINT`. This is not true for all dialects of Basic. It is with Locomotive Basic, though, so take care.

If your spelling is as good as mine, beware. The computer can be very cruel. You must be word-perfect with the commands you use. If you enter `PRIT` instead of `PRINT` the computer will be most unforgiving. You are quite lucky with Locomotive Basic, as it displays command words in capitals even if you typed them lower-case. This makes spotting the mis-spelt command much simpler.

Pernicious punctuation

You'd be surprised how easy it is to use a semicolon (;) instead of a colon (:) and vice-versa. Semicolons are common in `PRINT` and `INPUT` commands. Their main use is to join strings of characters together on the same line. For instance, to print "this that" with a change of border colour between the words:

```
PRINT "this ";: BORDER 0: PRINT "that"
```

Leave out the semicolon and "that" will be printed on the line below "this".

Colons have an altogether different function. Leaving them out is more likely to induce an error message. They tell the computer that one set of commands has finished and another follows. In general you'll find a command followed by a colon, another command then a colon... Only a few commands can be coexist in one line without colons: `IF`, `AND`, `OR` and `THEN` are examples.

Other characters that can be confused are the fullstop (.) and comma (,); the minus sign (-) and underline (_); the apostrophe (') and grave accent or open-quote (`)

Meaningful messages

Often the computer throws up a message that can be confusing or, worse, misleading. Sometimes it computer will say the error is in line such-and-such when quite often it's elsewhere. Here's a guide to the more usual errors.

Syntax error
The commonest of errors. This is probably the one message that tells you the actual line the error occured in. If you have read earlier paragraphs then you should be in a position to judge why the error occured.

Unexpected NEXT
You have placed a `NEXT` too few or a `FOR` too many in the listing. Each `FOR a` must have a `NEXT a` to complement it. Note that it is not actually necessary to specify the variable like `a` after the `NEXT` – this can cause problems when searching for the error. Take care that you don't nest loops incorrectly. If you have loops within loops, the first one you entered must be the last you leave. Correct nesting:

```
FOR a=1 TO 5: FOR b=2 TO 6: NEXT b: NEXT a
```

Incorrect nesting:

```
FOR a=1 TO 5: FOR b=2 TO 6: NEXT a: NEXT b
```

Unexpected RETURN
Similarly, if you have used a `GOSUB` in your program then there should be a `RETURN` to match it. However, if you use a `RETURN` without previously defining a `GOSUB` then this message will appear.

DATA exhausted
You have tried to `READ` data that does not exist. Or the computer cannot find any more data to read. Check your `DATA` statements carefully. If there are too few or you have placed a fullstop instead of a comma to separate items then you'll get an error.

Improper argument
This is the message that can bring tears to your eyes. It is the most difficult to find and cure. Rarely does the line thrown at you contain the error. Reading data, it can happen when you try to define characters while converting strings to numerical values... The only way to rid yourself of this one is to be cautious when copying `DATA` lines or assigning values to variables.

Type mismatch
Your Amstrad has encountered a string when it was expecting a number or vice-versa. This error occurs commonly when reading data. You'll generally get a message like "Type mistmatch in line 20." There is no error in line 20; that's just where the program was when it tried to use the data. The mistake will lie within a `DATA` statement.

What next?

This little lot should help you when debugging. Of course, there are numerous other errors that can creep into a listing, but this article should point you in the right direction. Next month we'll look into `DATA` statements. Most errors are made there. They are also the hardest to find.

Program made plain

Each month I shall look closely at one program – at its merits, at how it can be improved, and at what certain commands do. The listing need not be lengthy, just well structured, interesting and simple to follow. Remember last month I said that logic plays an important part in computer programing? Well, this month's listing, *Weekday*, is riddled with ANDs, ORs and IFs. Enough waffle – let's find out how the program works.

Weekday

A clever listing from **Gary Nugent** of Churchdown, Dublin, determines the weekday of any given date. This works with any year – BC as well as AD. Enter years BC as negative numbers, although the day and month remain positive.

There was no year 0. The mathematical concept of zero displaced Roman numerals many centuries after Constantine's decree that years were to be numbered from the birth of Christ – which was about 300 years ago by then, and they were out by at least four years. Anyway the years jumped from 1 BC to 1 AD. The program accounts for this and leapyears. It also works for both Gregorian and Julian calendars.

Enter the date in the form `day, month, year`. For example, to find out the weekday of June 23, 1986, then enter `23, 6, 1986` at the prompt. Year must be in full: typing `86` will land you near Nero.

Remember to REM



```
1 ' Weekday
2 ' by Gary Nugent
3 ' Amstrad Action    July 87
```

Label your listing. Identify what each section does. It makes it easier for everyone concerned. Gary's program is short and therefore does not need many `REM`s. Indeed the majority here are the credits at the top of the listing – which will remind you six months from now where to find all these explanations.

```
110 DIM day$(6)
120 FOR i=0 TO 6: READ day$(i): NEXT i
130 MODE 1: BORDER 0:INK 0,0:INK 1,26:INK 2,24:INK 3,6:CLS
140 WINDOW #0,1,40,2,25: WINDOW #1,1,40,1,1
150 PAPER #1,1: PEN #1,3: CLS#1: PRINT#1,SPC(16);"Weekday"
160 LOCATE 3,7: PAPER 3: PEN 1: PRINT"Enter date: ";
```

Restoring your work

The first line of Gary's program, `DIM day$(6)`, would be necessary on many home micros. Not, however, the Amstrad. Why? Well, as you'll remember from last issue's discussion of arrays, Arnold automatically dimensions a 10-item array. There is no need for you to do this. Gary has dimensioned a string array capable of holding seven items – superfluous, although it does make the listing more intelligible.

Line 120 loops from 0 to 6. As it does this, it `READ`s in an item of `DATA` and places it in one of the free spaces provided by the array, `day$`. The data it reads is held in lines 270 and 280. The computer automatically searches out the data so you don't have to specify where it is. The only occasions when you'd need to tell the computer where the data lies (with the command `RESTORE linenumber`) is when you have lots of it scattered throughout the program, or when some of it is to be used more than once in the same run. The `RESTORE` command can also simplify debugging. Imagine you had loads of `READ`s and `DATA`s in your listing. How could you tell which set of data was being read? You couldn't. Use `RESTORE line number`. In this case it would be `RESTORE 270`. If you peer at line 270 you'll notice "Sunday, Monday, Tuesday..." We now know what `day$` does – it contains the names of the days of the week.

All the other lines in the section deal with setting up the colours and screen mode. Windows are also defined to highlight certain bits of text. They act like individual screens. The parameters following `WINDOW` are window number (between 0 and 7), left side of window, right side, top of window and bottom. You must place a hash (#) before the window number. Once a window has been defined, you can `PRINT #windownumber`, `INPUT #windownumber`, `PAPER #windownumber`, `CLS #windownumber`... Very useful.

Logically speaking

```
170 PAPER 0: PEN 2: INPUT" ", day, month, year
180 IF month>2 THEN yy=year: mm=month ELSE yy=year-1:
    mm=month+12
190 y1=year-INT(year/4)*4: y2=year-INT(year/100)*100:
    y3=year-INT(year/400)*400: ly=(y1=0 AND y2<>0 OR y3=0)
200 IF year=0 OR month=0 OR month>12 OR day=0 OR day>31
    OR ((month=4 OR month=6 OR month=9 OR month=11) AND
    day>30) OR (month=2 AND day>28-ly) THEN LOCATE 3,9:
    PAPER 2: PEN 0: PRINT" Invalid Date ";CHR$(7): GOTO 260
210 IF day>4 AND day<15 AND year=1582 AND month=10
    THEN LOCATE 3,9: PAPER 2: PEN 0: PRINT" Date did not
    exist ";CHR$(7): GOTO 260
220 IF year>1582 OR (year=1582 AND month>10) OR (year=1582
    AND month=10 AND day>14) THEN a=INT(yy/100):
    b=2-a+INT(a/4) ELSE b=0
```

After you have told it the day, month and year with `INPUT`, the program, starting from line 180, will set up some variables according to your input. The expression `y1=year-INT(year/4)*4` in line 190 can be simplified to `y1=year MOD 4`. The other formulae in the line could similarly be reduced in size – and, by the way, in execution speed. All do the same thing: the answer is the *remainder* after dividing `year` by a certain number. If you see, say, `7 MOD 2` or `7-INT(7/2)*2` you should be able to determine the result, 1, without too much trouble.

The reason for all this kerfuffle is to check if `year` is a leapyear. Leapyears occur if the year divides by four. But there are exceptions (and this is the correction the Gregorian calendar made on the Julian, because it was found that the year is not 365¼ days long but 365 days, 5 hours, 48 minutes and 46 seconds). Years that divide by 100 are not leapyears unless they also divide by 400.

That's the meaning of the last statement in line 190:

```
ly = (y1=0 AND y2<>0 OR y3=0)
```

Looks a rather odd equation at first, doesn't it? Puzzle through the right-hand side by thinking "true" or "false" for each part. Then convert a final result to a number: "true" is –1, "false" is 0. So `ly` ends up as 0 or –1 depending if `year` was normal or leap. In other words, there are two possibilities that produce a leapyear:

- `y1` (which is `year` MOD 4) equals zero at the same time as `y2` (which is `year` MOD 100) does not equal zero
- `y3` (which is `year` MOD 400) equals zero.

In these cases the result for `ly` will be –1 (a leapyear). If any of these results prove to be opposite then `year` is normal. Phew!

As you can see from the last paragraph, it is much easier to manipulate logic by using mathematical shorthand than by waffling on in English.

The Pope's patch

Lines 200 and 210 aren't much easier to follow. They both check that the date you entered exists and is legal. The first line checks that neither the year nor month equal zero or the month is greater than 12. It then looks to see that the date is not equal to zero or greater than 31 or greater than 30 if the month happens to be 4, 6, 9 or 11. If any of these possibilities fall true or the month is 2 (February) and the day greater than 28 (29 for a leapyear) then the program throws up the message "Invalid Date."

Pope Gregory XIII made life interesting by decreeing that in 1582 ten days would be skipped to get the calendar back into step with the seasons. Some poor sod will have missed his birthday, because 15 October came immediately after the 4th that year. Line 210 makes sure that you haven't typed one of these dates in. If you have then it chucks you out saying, "Date does not exist."



 IF day=XVI AND month=III ...

Complication. Lines 210 and 220 above are correct for Catholic countries. But Protestant and Orthodox countries protested. This resulted in considerable calendar confusion for centuries. Not until September 1752 did England follow suit – and by then had to lose 11 days to match up. Russia stuck to the old calendar till after 1917, which is why the October Revolution took place in November. If you wish the listing to work for historical British dates then alter as follows:

```
205 REM Calendar correction in England
210 IF day>2 AND day<14 AND year=1752 AND month=9
    THEN LOCATE 3,9: PAPER 2: PEN Ø: PRINT" Date did not
    exist "; CHR$(7): GOTO 26Ø
220 IF year>1752 OR (year=1752 AND month>9) OR (year=1752
    AND month=9 AND day>14) THEN a=INT(yy/1ØØ):
    b=2-a+INT(a/4) ELSE b=Ø
230 jd=INT(365.25*yy-Ø.75*(yy<Ø))+INT(3Ø.6ØØ1*(mm+1))+
    INT(day)+172Ø996+b
240 dd=ROUND((jd/7-INT(jd/7))*7)
250 LOCATE 3,1Ø: PAPER 2: PEN Ø: PRINT" That was a ";
    day$(dd);" "
260 PAPER Ø: PEN 1: LOCATE 1,23: END
270 DATA Sunday, Monday, Tuesday, Wednesday
280 DATA Thursday, Friday, Saturday
```

What day?

Finally the last few lines of the program. Lines 230 and 240 calculate the weekday from the data you typed in earlier. Line 250 prints the weekday and line 260 returns you to the Ready prompt.

Fancy text generator

Not wishing to be left in the cold, **Richard Turner** has decided to send in his own text-printing routine. It works in modes 0 and 1. Character position, character width and character height can all be defined, making it very easy to print text in a multitude of shapes and sizes.

The listing below includes a short demo (starting at line 190) which can be omitted. However, I recommend typing it in as the results are rather rewarding.

The word or sentence you want printed in fancy text must be located at the bottom left corner of the screen. The Call then transfers it to the given coordinates. To avoid text showing at the bottom of the screen, it is best to print it with `PEN` set to the current background colour.

To produce the text the routine must be given a few parameters:

`CALL 40000, x, y, len*m, xstep, ystep`

where *x* and *y* are the coordinates (0–639 by 0–399); *len*m* is the length of the word or sentence multiplied by 16 for mode 1 or 32 for mode 0;
xstep is the character width; and *ystep* is character height.

You must be careful that XOR mode is off, that *xstep* and *ystep* are never zero, and that *len* is never greater than 15.

```
10 ' Fancy text generator
20 ' by Richard Turner
30 ' Amstrad Action    June 87
40 ' call 4ØØØØ, x, y, len*m, xstep, ystep
50 ' for above m must be 16 (mode 1) or 32 (mode Ø)
60 FOR X=4ØØØØ TO 4Ø129
70 READ A$: POKE X,VAL("&"+A$)
80 NEXT
90 DATA FE,Ø5,CØ,11,ØØ,ØØ,21,ØØ,ØØ,DD,4E,Ø8,DD
100 DATA 46,Ø9,ED,43,28,AØ,DD,4E,Ø6,DD,46,Ø7,ED
110 DATA 43,2A,AØ,D5,E5,CD,FØ,BB,FE,Ø3,CA,BØ,9C
120 DATA E1,D1,13,ØØ,DD,7E,Ø2,ED,4B,28,AØ,3D,Ø3
130 DATA FE,ØØ,C2,72,9C,ED,43,28,AØ,ØØ,7A,B3,DD
140 DATA BE,Ø4,C2,5D,9C,23,ØØ,DD,7E,ØØ,ED,4B,2A
150 DATA AØ,3D,Ø3,FE,ØØ,C2,8F,9C,ED,43,2A,AØ,ØØ
160 DATA 11,ØØ,ØØ,DD,4E,Ø8,DD,46,Ø9,ED,43,28,AØ
170 DATA 7C,B5,FE,1Ø,C2,5D,9C,C9,ED,5B,28,AØ,2A
180 DATA 2A,AØ,CD,EA,BB,C3,67,9C,ØØ,ØØ,ØØ,ØØ,ØØ
190 ' EXAMPLE
200 MODE 1: INK 3,Ø: INK Ø,Ø
210 PEN 3: LOCATE 1,25: PRINT "TEXT": PEN 1
220 CALL 4ØØØØ, 1Ø, 35Ø, 4*16, 3, 3
230 CALL 4ØØØØ, 3Ø, 31Ø, 4*16, 2, 2
240 CALL 4ØØØØ, 5Ø, 29Ø, 4*16, 2, 1
250 PEN 3: LOCATE 1,25: PRINT "STYLE": PEN 1
260 CALL 4ØØØØ, 7Ø, 22Ø, 5*16, 1, 4
270 CALL 4ØØØØ, 9Ø, 16Ø, 5*16, 2, 4
280 CALL 4ØØØØ, 11Ø, 9Ø, 5*16, 4, 4
290 PAPER 3: PEN Ø:LOCATE 1,25:PRINT "TEXT":PEN 1:PAPER Ø
300 CALL 4ØØØØ, 13Ø, 2Ø, 4*16, 2, 2
310 IF INKEY$="" THEN 31Ø
```

Sine-wave writing

Andrew Perry and **Andrew Crawford** of Devon have clubbed together to produce an interesting listing that moves a message across the screen in the form of a sine-wave. The program asks you to input the message you wish moved around the screen. Best results are obtained by using short sentences or a single word.

```
1 ' Sine-wave writing
2 ' by Andrew and Andrew
3 ' Amstrad Action    July 87
10 MODE 1: BORDER Ø: INK Ø,Ø: INK 1,26: DEG
20 TAGOFF: INPUT"Enter message ";a$: CLS: TAG
30 FOR n=-1ØØ TO 74Ø STEP INT (RND*15)+3
40 PLOT -1ØØØ,-1ØØØ,INT(RND*3)+1
50 MOVE n+4*COS(n),2ØØ+15Ø*SIN(n+RND(2Ø))
60 PRINT a$;: x=n: x=x-1ØØ
70 MOVE x+4*SIN(x),2ØØ+15Ø*COS(n+RND(2Ø))
80 PRINT a$;: NEXT: GOTO 2Ø
   GOTO 1Ø
```

Random lines

Random lines on one line has been sent in by **DL Lau** of Haywards Heath, Sussex. It produces a multitude of lines at different angles, sizes and colours.

```
1 ' Random lines
2 ' by DL Lau
3 ' Amstrad Action    July 87
10 MODE Ø: BORDER Ø: INK Ø,Ø: WHILE INKEY$="": PLOT INT
   (RND*64Ø),INT(RND*4ØØ),INT(RND*16): DRAW INT (RND*64Ø),
   INT(RND*4ØØ): INK INT(RND*15)+1,INT(RND*27): WEND:
```

If you have written a large program – a word-processor, spreadsheet, disk utility or game for example – that would look out of place in the current type-ins section, send it in anyway. We are planning to use lengthier listings at a later date. Remember the mimimum you get for your type-in (if it is printed) is £10.

Megadump

While **Pat McDonald** of Frome, Somerset, isn't busy writing reviews for *AA* he enjoys a spot of programming. His listing produces a poster-sized shaded screen-dump. You will need:

- an Epson-compatible printer
- at least 32 sheets of continuous printer paper
- 3¾ hours to spare
- any of the Amstrad CPC computers
- a fairly new printer-ribbon
- scissors and stickytape

The program prints a shaded picture of the screen contents Its dimensions are four down by eight across. Make sure your printer has a newish ribbon; otherwise you'll get rough results. Make doubly sure you have something to get on with while you wait for it to print: it takes almost four hours. The reason it takes so long is that a typical graphics screen on the Amstrad contains 640 × 400 pixels or dots – each pixel gets enlarged to one character in size, a magnification of eight. The program automatically selects NLQ, which results in the printing of over half a million characters.

Change mode, select correct colours and load the picture you wish. Then run the listing:

```
MODE 1: INK 0,0: INK 1,4: LOAD "picture", &C000: RUN
```

What makes this listing so special is that the program checks the colours that the screen uses and selects, from a palette of 27, the appropriate character. Pictures can be printed from any screen mode. You'll have to separate the 32 pages and stick them together to make the poster, of course. You'll marvel at the results. The pictures are stunning.

```
1 ' Megadump
2 ' by Pat McDonald
3 ' Amstrad Action      July 87
140 '
150 'First poke in the machine-code
160 '
170 RESTORE
180 MEMORY 28999
190 FOR n=0 TO 259 STEP 10
200 total=0
210 FOR x=0 TO 9
220 READ a$
230 g=VAL("&"+a$)
240 total=total+g
250 POKE (29000+n+x),g
260 NEXT x
270 READ b$
280 checksum=VAL("&"+b$)
290 IF checksum <> total THEN PRINT "ERROR IN DATA
    IN LINE ";n+340: END
300 NEXT n
310 '
320 'Data for the machine-code
330 '
340 DATA CD,2E,BD,DA,03,72,06,08,21,23,359
350 DATA 72,7E,A7,CD,2B,BD,30,FB,23,10,4AA
360 DATA F6,3E,00,21,46,72,E5,F5,CD,35,4E9
370 DATA BC,F1,E1,70,23,3C,FE,10,20,F2,57D
380 DATA 06,10,FD,21,46,72,DD,21,56,72,3B2
390 DATA 16,00,FD,7E,00,21,2B,72,5F,19,2C7
400 DATA 7E,DD,77,00,DD,23,FD,23,10,EE,4F0
410 DATA 21,00,00,22,66,72,21,8F,01,22,1EE
420 DATA 68,72,11,6A,72,0E,00,06,00,2A,205
430 DATA 66,72,09,D5,EB,2A,68,72,C5,CD,537
440 DATA F0,BB,21,56,72,4F,06,00,09,C1,3B3
450 DATA D1,7E,12,13,0C,79,FE,50,20,E1,448
460 DATA 3E,0D,12,13,3E,0A,12,06,52,21,143
470 DATA 6A,72,7E,CD,2B,BD,30,FB,23,10,46D
480 DATA F7,2A,68,72,2B,7D,FE,FF,C2,97,5F9
490 DATA 71,7C,FE,FF,C2,97,71,3E,0C,CD,5CB
500 DATA 2B,BD,30,FB,2A,66,72,11,50,00,376
510 DATA 19,22,66,72,7D,FE,80,C2,94,71,4D5
520 DATA 7C,FE,02,C2,94,71,C9,06,13,21,446
530 DATA 10,72,7E,CD,5A,BB,23,10,F9,C9,4D7
540 DATA 50,52,49,4E,54,45,52,20,4E,4F,2E1
550 DATA 54,20,52,45,41,44,59,0D,0A,1B,21B
560 DATA 51,7F,1B,41,07,1B,6E,40,57,48,29B
570 DATA 4C,4F,42,35,3F,53,56,49,31,37,2AB
580 DATA 28,29,21,23,26,2A,3C,3E,3D,2F,1CB
590 DATA 27,2C,2D,20,00,00,00,00,00,00,0A0
600 '
610 'Then run the machine-code
620 '
630 CALL 29000
```

Zycloid

Using the CPC's extensive mathematical functions, **J Smeets** of the Netherlands has produced a program that will create many wonderful patterns. The graphics formed are cycloids or rolling curves – the curves you'd get if you taped a pencil to a wheel rolling along a line or even around another wheel. The program will ask you to choose epicycloids or hypocycloids. The radii of circle 1, circle 2 and the stretch factor must then be specified.

```
1 ' Zycloid
2 ' by J Smeets
3 ' Amstrad Action     June 87
40 MODE 2: INK 0,1: INK 1,25: BORDER 1: PLOT -1,-1,1
50 ON BREAK GOSUB 510
60 CLS: PRINT: PRINT SPC(5)"1) draw epicycloid"
70 PRINT: PRINT SPC(5)"2) draw hypocycloidc"
80 PRINT: PRINT SPC(5)"3) end"
90 PRINT: PRINT SPC(5)"Please choose"
100 a$=INKEY$: IF a$="" THEN 100
110 i=ASC(a$)-48
120 IF i=1 THEN m=1: GOTO 160
130 IF i=2 THEN m=2: GOTO 160
140 IF i=3 THEN CLS: END
150 GOTO 60
160 CLS: PRINT SPC(5): INPUT"radius of circle 1: ";ra
170 PRINT SPC(5): INPUT"radius of circle 2: ";rb
180 PRINT SPC(5): INPUT"stretching         : ";st
190 CLS
200 ra=INT(ra+0.5): rb=INT(rb+0.5)
210 ' * number of points of support *
220 np=10*(ra+rb)
230 ' * calculation of scale factor *
240 IF m=1 THEN d=rb*(st+1)+ra
250 IF m=2 AND rb<=ra THEN d=rb*(st-1)+ra: rb=-rb
260 IF m=2 AND rb >ra THEN d=rb*(st+1)-ra: rb=-rb
270 ' * calculation of number of loops *
280 ' * ( reduce ra/rb if possible)    *
290 z1=ra: z2=rb: z=z1: IF z2<z1 THEN z=z2
300 IF z=0 THEN 160
310 FOR i=z TO 1 STEP -1
320 IF INT(z1/i)<>z1/i THEN 350
330 IF INT(z2/i)<>z2/i THEN 350
340 z1=z1/i: z2=z2/i
350 NEXT i
360 ' * calculation of stepwidth *
370 h=z2*2*PI/np
380 ' * define parameters of circle *
390 DEF FN xx(t)=(ra+rb)*COS(t)-st*rb*COS((ra+rb)*t/rb)
400 DEF FN yy(t)=(ra+rb)*SIN(t)-st*rb*SIN((ra+rb)*t/rb)
410 ' * calculation of starting point *
420 x1=INT(FN xx(0)/d*100+320)
430 y1=INT(FN yy(0)/d*100+200)
440 ' * drawing of circle in the points of support *
450 FOR t=h TO z2*2*PI+h STEP h
460 x2=INT(FN xx(t)/d*100+320)
470 y2=INT(FN yy(t)/d*100+200)
480 PLOT x1,y1: DRAW x2,y2: x1=x2: y1=y2
490 NEXT t
500 BORDER 13
510 MODE 2: END
```

Guidelines for Type-in authors

Anything from £10 to £100 could be yours if your type-in is selected to appear in these pages. Remember it must be your own original work and not previously published elsewhere. The address: **Type-ins editor, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ.** Please submit your work on paper as well as on disk or cassette.

If you plan to send a Type-in listing to be considered for publication, here are a few pointers:

- Use lower-case rather than capitals for variable names. Keep them short but meaningful.
- Do not use letters that look like numbers as variable names: lower-case L (l), capital I or either O. Even B can look like 8 on some printers.
- Structure your programs – divide them into sensible procedures.
- REM statements make the program easier to understand – especially when you rediscover it on tape six months later. Put program name, source and date at the top. REM every subroutine to outline its purpose. (Starting a line with an apostrophe (') is the same as REM.)
- Avoid long multi-statement lines. Short = easy to debug.
- Try to keep lines short enough to fit our columns without confusing wrap-arounds.
- And *please* make sure your name and address (in human-readable form!) is on every single piece, especially the label of the cassette or disk. Keep a copy.

Neutron maze

Tommy Daffin of South Breham, Somerset, has converted *Neutron Maze*. It was originaly written for the BBC Micro by a pal of his, P Dixon. I have not seen the Beeb version so I can't tell you if it has fared well en route. What I can tell you, though, is that I haven't seen a game like this before. It is original, fun and to a certain extent addictive – even Bob returned for another go.

The idea is to guide an electron through a Neutron fence using two keys: the spacebar and Return (or Enter). The spacebar causes the electron to change its vertical direction. Return alters the electron's horizontal movement. Before you start you are given the choice of start-level (1 to 10). Hardest level is 1 and easiest is 10. Stay sane and choose levels above 6. All other instructions you need or don't need are contained within the listing.

```
1 '             Neutron Maze
2 ' this version by permission of P Dixon
3 '   Amstrad version by Tommy Daffin
4 '         Amstrad Action    July 87
70 REM *** setup ***
80 GOSUB 520: ' set up sound,variables
90 GOSUB 600: ' choose keys and difficulty
100 GOSUB 820: ' set up screen
110 PLOT x,y,3: WHILE INKEY(18)=-1: WEND
120 st=TIME: ox=x: oy=y
130 x=10
140 INK 3,26
150 REM *** Main Loop ***
160 PLOT x,y,3: ox=x: oy=y: x=x+x1: y=y+y1
170 IF nty>0 THEN nty=nty-1: GOTO 190
180 IF INKEY(47)<>-1 THEN y1=-y1: nty=2
190 IF ntx>0 THEN ntx=ntx-1: GOTO 210
200 IF INKEY(18)<>-1 THEN x1=-x1: ntx=2
210 GOSUB 300: ' check hit
220 IF x>630 THEN GOTO 340: ' finished
230 CALL &BD19
240 PLOT ox,oy,0
250 GOTO 160
260 ' delay
270 FOR del=1 TO 60
280 NEXT del
290 RETURN
300 REM *** Check Hit ***
310 IF TEST(x+x1,y)<>0 THEN x1=-x1: SOUND 129,1500,0,1,1,1
320 IF TEST(x,y+y1)<>0 THEN y1=-y1: SOUND 130,1000,0,1,1,1
330 RETURN
340 REM *** Finish ***
350 en=TIME
360 ti=en-st
370 PRINT CHR$(22)+CHR$(1)
380 LOCATE 11,12: PEN 3: PRINT"YOU HAVE SUCEEDED"
390 LOCATE 7,14: PRINT"Your Time was: "+STR$(ti)
400 LOCATE 9,16: PRINT"Press [SPACE] to play."
410 PRINT CHR$(22)+CHR$(0)
420 no=0
430 INK 3,i(no): no=no+1: IF no=16 THEN no=0
440 IF INKEY(47)<>-1 THEN GOTO 470
450 FOR del=1 TO 30: NEXT del
460 GOTO 430
470 FOR h=1 TO 30: LOCATE 1,25: PRINT CHR$(10)
480 NEXT h
490 IF INKEY$="" THEN RUN
500 GOTO 490
510 END
520 REM *** Set up sound,variables ***
530 ENV 1,14,-1,2
540 ENT 1,100,5,1
550 x=10: y=10
560 DIM i(15): FOR f=1 TO 15: READ i(f): NEXT f
570 DATA 1,2,11,20,26,23,16,7,3,6,15,24,22,18,9,10
580 no=0: x1=2: y1=2
590 RETURN
600 REM *** Choose keys and diffuculty ***
610 CALL &BC02: INK 0,0: BORDER 0
620 PAPER 0: MODE 1
630 LOCATE 14,2: PEN 3: PRINT"NEUTRON MAZE"
640 PRINT CHR$(22)+CHR$(1): LOCATE 14,2: PEN 2:
    PRINT"____________": PRINT CHR$(22)+CHR$(0)
650 LOCATE 2,4: PEN 2: PRINT" THE AIM IS SIMPLE: ";: PEN 1:
    PRINT"You have to guide an electron through  the
    neutron fence."
660 PEN 2: PRINT" THAT'S IT!"
670 PRINT: PEN 2: PRINT"  KEYS: "
680 PEN 1
690 PRINT"      Reverse up/down=SPACE"
700 PRINT"      Reverse left/right=ENTER"
710 PRINT: PRINT: PEN 3: PRINT"Choose difficulty(1-10): ";
720 INPUT"",dif$
730 dif=VAL(dif$)
740 IF dif<1 OR dif>10 THEN GOTO 710
750 PEN 1: PRINT: PRINT"Get ready to play."
760 PRINT: PRINT: PEN 3: PRINT"  Then press [SPACE] when
    you are ready."
770 FOR del=1 TO 25
780 IF INKEY(47)<>-1 THEN RETURN
790 NEXT del
800 INK 3,i(no): no=no+1: IF no=16 THEN no=0
810 GOTO 770
820 REM *** Setup Screen ***
830 MODE 1: INK 1,6
840 MOVE 0,0: DRAW 638,0,1:DRAW 638,398:DRAW 0,398:DRAW 0,0
850 FOR x=20 TO 620 STEP 6
860 h=20*dif: le=(400-h)/2
870 l=(le/2)+(INT(RND*(le)))
880 MOVE x,0
890 DRAWR 0,l,1: DRAWR 0,h,0: DRAW x,398,1
900 NEXT x
910 RETURN
```



Whoops! *Filecopy* foul-up

Remember Martin Schroeder's *Filecopy* program last issue? Well, Jeffrey Birks phoned us to say that the program works incorrectly with two drives. You can't pass files between drives A and B.

Alter the following lines and all will be well:

```
80 IF check<>27271 THEN PRINT"Data Error!";chr$(7): END
190 DATA ED,B0,3A,E6,AF,32,00,A7,21,F6
250 DATA BC,CD,18,BB,3A,E7,AF,32,00,A7
```

PROBLEM ATTIC



Your loftier enigmas with Arnold will never

Reading the screen

I am writing a computer-studies GCE program, and have almost completed it. However, I need a routine that can read a character and recognise it from the screen.
Andrew Radcliffe
Wimborne, Dorset

If you include these two lines within your program, you'll be able to read characters from the screen.

```
10 FOR t=&BF00 TO &BF06:READ a$:POKE t,VAL("&"+a$):NEXT t
20 DATA CD,60,BB,32,07,BF,C9
```

Use LOCATE *to position the cursor over the character you wish to read.* CALL &BF00 *will read the character: location &BF07 will hold its Ascii code. For example, if you wished to read the character at row 1, column 1, try this:*

```
10 LOCATE 1,1: CALL &BF00
20 a=PEEK(&BF07)
```

The variable a *will contain the Ascii code of the character at that position.*

Mouses or mices?



You refer to a single AMX mouse as a mouse. How would you refer to several of them, mouses or mice?
Thomas Hardman
Warrington, Cheshire

Well, if you have more than one mouse you'd have to put them in hice. Jim Nagel says that if you turn a mouse upside-down you could call it a trackball – we think he's being a bit rude, though. If you want a wittier rude answer, why don't you drive across to Liverpool and ask the Scice?

Disk-drive dilemma

Greetings from the Greek island of frequent frustrating power cuts. I have several times been caught by power cuts with a disk in the drive. However (luckily?), I have never had a corrupted disk. Could you explain if corruption can occur and what causes it if the drive is switched off and a disk inserted? I have often come across the dire warning "Do not switch off with a disk in the drive." As disks cost £7.50 in Greece I am loath to make backup copies.
Elizabeth Stanley
somewhere in Greece

Warnings are given for a reason. There are two main types of drive. One type has a head solenoid (a coil of wire that acts like a magnet when an electric current flows through it) and the other type does not. A head solenoid will prevent the drive head from touching the disk-surface until the disk is accessed – when not whirring, the head will remain 2 to 5mm from the surface.

None of the three-inch drives (including Amstrad's own) have a head solenoid. So the head on these drives is in constant contact with the disk.

Every time you switch on (or off) an electrical appliance there is either a surge or sag of power before the current stabilizes. Disk drives are no exception. With the drive head resting on the disk it is quite feasible (though very rare) that data can be lost or corrupted. How? Data is stored on the disks in magnetic patterns. If a surge of electricity comes plummeting through the drive head – or an eddy current as it's called in the trade – there's every chance that these delicate magnetic patterns will corrupt.

As stated before, it is extremely rare to lose data in this way, but it can happen. If the drive has a head solenoid the chance of corruption is even less.

Arnold does not understand

How can I get my Amstrad to understand lines such as these:

```
ORG &9000
LD HL, work_space
DEFB 0
```

I have looked them up in my User Instructions, but no luck. Why dosen't Arnold accept these?
Matthew Altham
Cambridge

Basic has a fairly large vocabulary. All of the commands are described, to varying degrees of clarity, in the manual. The words or commands you are trying to type in are known as assembler mnemonics. They are not part of the Basic instruction set. Assembler mnemonics or opcodes are entered into an editor. The editor then passes them to an assembler. The assembler produces machine-code. Machine-code is the raw instructions that the Z80 processor feeds on.

There are several assemblers on the market, containing their own editors: Maxam (£25 disk) from Arnor and Pyradev from Gremlin are the best choices.

Simon says...

AA 14 had a listing called *Simon Says*. Having typed it in and run it numerous times, I keep getting a syntax error in line 280. Why is this? The line reads:

```
280 BORDER 0:INK 0,0:INK 1,26:INK 2,6:INK 3,24:INK 4,18:
    INK 5,2:MOVE 0,0,1:RETURN
```

I've given up in despair and wonder if there is a typing error. My machine is a 464.
Mrs J Wandless
Newcastle-upon-Tyne

There is nothing wrong with your typing or the listing. The problem lies with the computer. Don't panic: your machine is not faulty. The listing is for the 664 or 6128. At the time we did not realise this and did not mention it in the text. If you want to use the program on the 464, alter the lines below. Note, however, that you won't get the same display – which may make the game awkward to play.

```
280 BORDER 0:INK 0,0:INK 1,26:INK 2,6:INK 3,24:INK 4,18:
    INK 5,2:MOVE 0,0:RETURN
290 FOR d=1 TO 4:MOVE d*100,250:DRAWR 75,0:DRAWR 0,-75:
    DRAWR -75,0:DRAWR 0,75:MOVER 10,-10
```

Bad command

Thanks for your poke to turn off the "disk missing" error message. This saved me a lot of hacking. What I need now is a poke to turn off the Amsdos "Bad command" message which is printed in its place. Is this possible? I use a quick CLS to remove the message. Unfortunately the screen flashes for a moment. Not desirable!
JD Crabtree
Darlington

There is no legal method for removing this message – you're stuck with it. The way I get round it is not particularly elegant: before accessing the disk type POKE &BB5A, &C9. *When the disk has finished its loading or saving* POKE &BB5A, &CF. *The poke prevents anything being printed to the screen. Not ideal, but it works.*



PROBLEM ATTIC

(well, hardly ever) stump our expert RpM

Does not load from code

I have a question concerning the loading of a program from disk by machine-code. To load, say, "program.bin" I use the following routine:

```
              ORG &A000

Ø6 ØB         LD B,11
21 14 AØ      LD HL,name
11 ØØ 9Ø      LD DE,&9000
CD 77 BC      CALL &BC77
EB            EX DE,HL
CD 83 BC      CALL &BC83
CD 7A BC      CALL &BC7A
C3 ØØ 3Ø      JP &3000

              name
              db "program.bin"
```

After assembling and then saving by using `SAVE "CODE", B, &A000, &30, &A000`, I can use the commands `MEMORY &9FFF: LOAD "CODE": CALL &A000` to load the routine into memory and then call it. The program executes correctly and loads in the file from disk called "program.bin". For some reason if I try to `RUN "CODE"` the message "Press PLAY than any key" appears. Why? What is wrong and how can I rectify this problem?

Raul Toral
Edinburgh

When you run a machine-code program the system is partially reset. External interrupts are disabled, as are all timer, frame flyback and keyboard break events. Sound generation is turned off, indirections are set to their default routines and the stack is reset. The important bit to note is that firmware indirections are reset. This means that the standard cassette loading and saving routines will be in use. To overcome this the first few lines of your machine-code listing should read:

```
        LD C,&FF
        LD HL,start
        CALL &BD16
start   CALL &BCCB
```

The first Call runs a machine-code program in memory. It points to the start address and then jumps there. In doing so it shuts down much of the system. `CALL &BCCB` *initialises all roms – this will include the disk rom. Your program then works as expected.*

Arnold and Midi go hand in hand

My main reason for purchasing the Amstrad computer was that I believe the CPC is Midi-compatible. Midi, as I'm sure you know, stands for "musical instrument digital interface": it is the standard which manufacturers agreed to adopt so that their products – synthesizers and keyboards – could talk to each other. I own a DX7 and know it is possible to link it to the computer. But how? I can't seem to find any helpful info.

Alistair MacKenzie
Nantwich, Cheshire

As it stands, your Amstrad computer is incapable of coupling to any Midi instrument. You need an interface to connect the two. At present two companies produce the goods: ElectroMusic Research, (0702) 33 5747, and Ram Electronics, (0252) 85 0085.

The Music Machine from Ram (reviewed in AA 17) is more than just an Midi interface. It allows you to sample sounds and create musical compositions with the software supplied. One drawback though: the software does not let you edit Midi keyboard compositions. At £60 it is a reasonable buy.

EMR can supply you with the interface for £90 and software (Miditrack Performer at £50) which allows full control of your instrument – reviewed in issue 13. EMR offers several other packages and a telephone support service to potential and existing EMR users.

My advice is contact both companies. Talk to them. Find out exactly what you want and need.

No noise?



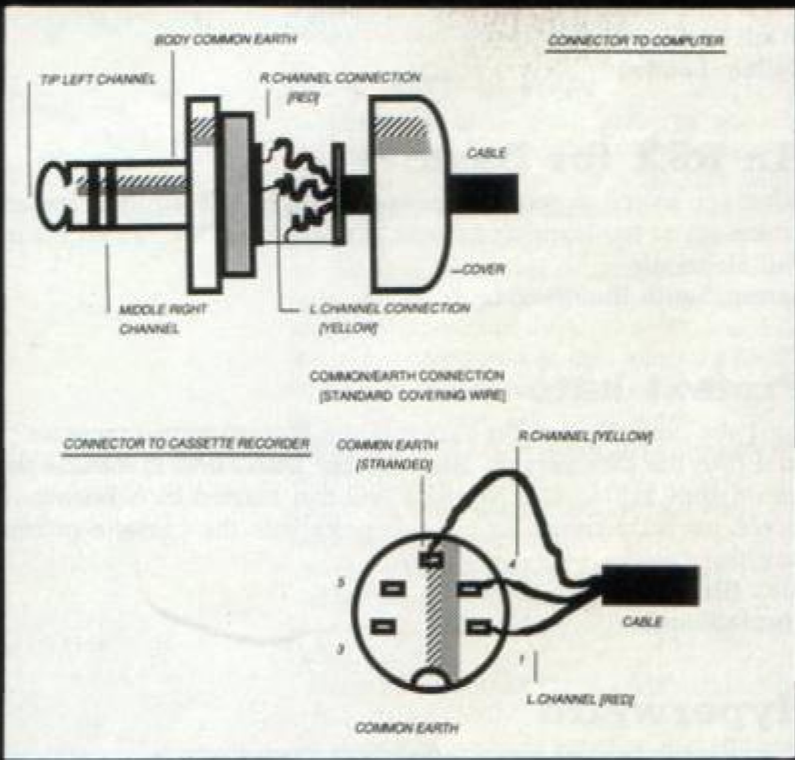
Why, if you plug speakers or headphones into the headphone socket, does no sound come out?

Mark Paterson
Ipswich, Suffolk

The signal from the output socket at the back of your Amstrad is weak. In fact it is too weak to power speakers or headphones (although with headphones you may hear very soft noise). There are two things you can do:

Vanguard Leisure, (0772) 61 7665, produces the Maestro. It consists of an amplifier, headphones and two three-inch pod speakers. The result is stunning stereo. Unfortunately you pay for the privilege: £40.

If you can manage a wiring job that requires a drop of solder then have a go at this: you will need a 3.5mm stereo jackplug, a length of single-core screened cable and a standard five-pin Din plug. A picture is worth a thousand words: the diagram shows how you should wire everything together. If the thought of solder sends a shudder through you, take the diagram to your local electronics shop. The repairman may be willing to do it for you.



Now that you have this connector you have two possibilities: connect the jack to the I/O of your Amstrad and the Din plug to either a cassette recorder or your hi-fi. You should be able to rig it so that sound comes out of either.

HOT TIPS

Accessing extra memory, protecting programs and ready-to-run RSXs. All this from Basic? How? Read on – the experts reveal all.

Protecting Basic

Have you used the Basic protection, `SAVE"filename",P`? Pretty naff really. I have found a way of make listings look double-dutch. First write your program. Make sure the first command in the first line reads `POKE 368,00`. For example:

```
10 POKE 368,00:MODE 0:INK 0,0:BORDER 0
20 INK 1,26
```

Before running the program type, in direct mode, `PRINT PEEK(368)`. You should find a number printed on the screen. Replace this number with the `00` following `POKE` – in my example it's in line 10. Now, in direct mode again, `POKE 368,`*n* where *n* is any number except zero and the value that was printed beforehand. List the program. What a lot of mumbo-jumbo! By poking different values you'll get a number of odd-looking listings.

Mark Bydder
Ealing, London

An RSX for Basic

When you switch on your computer there is an RSX (resident system extension) or bar-command ready to use. It's `|BASIC`. Go on, try it.

Phil Stockdale
Barton, South Humberside

Protext hate

Don't you hate the flashing cursor in the Protext word-processor? I do. I own the disk version. Alter the file DISC2.BAS to include the line `75 POKE &BB7E,&C9`. No more will that blasted blob bounce. It should be fairly simple to use this poke with the cassette or rom versions.

Alex Aird
Birmingham



Hyperweird

This progette creates weird effects and much flashing.

```
10 a=&bd20: for b=a to a+5: call b: next: goto 10
```

Haden Jackson-Robbins
Harpenden, Herts

It certainly does!

Banking from Basic

J Andrews (*AA* 15) had a fairly lengthy listing that lets you load the Bank Manager from within your own Basic program. The way it is written means it loads at the highest available memory location. However, it is long. This works just as well:

```
10 MEMORY &7FFF
20 LOAD"bankman.bin",&8000
30 CALL &8000
```

Anyway, why not bank-switch from Basic without the Bankman? The firmware routine (6128 only) to switch banks is held at &BD5B. You must supply the A register with a number. This represents a memory configuration or organization. Ah, but how do you load the A register from Basic? Read on:

organization	block accessed at memory address			
	&0000	&4000	&8000	&C000
0	0	1	2	3
1	0	1	2	7
2	4	5	6	7
3	0	3	2	7
4	0	4	2	3
5	0	5	2	3
6	0	6	2	3
7	0	7	2	3

The standard memory setup uses organization 0. Say you wished to use organization 4, which slots the first block of the extra 64k memory into location &4000. You would use:

```
10 CALL &BD5B, x,x,x,x : ' A reg = 4
20 MEMORY &3FFF: LOAD"screen.bin",&4000
30 CALL &BD5B          : ' A reg = 0
```

The listing will switch to organization 4, load a screen at &4000 and then return to the normal (0) organization. The clever trick occurs in line 10. Notice `CALL &BD5B` is followed by four parameters (these can be anything). It works because the A register always holds the number of parameters following a Call or RSX (bar-command). To access other organizations, use a different number of parameters.

Alex Aird
Birmingham

Your bank benefits from these tips, Alex. A couple of tenners are on the way to you.

Pretty cursor

Here's a tip for 464 owners. Enter in direct mode (without using line numbers): `POKE 47502,150`. Now move the cursor using the cursor cluster. Pretty strange, don't you think? To turn off this interesting effect: `POKE 47502,7`.

Martin Higgins
Gosport

Lightpen problems

If anyone is having trouble with the Trojan Lightpen (LP-1) – if it is difficult or impossible to select options – then try switching off all or most of the lights in the room. The darker the room, the more sensitive the lightpen.

Robert Heaney
Edinburgh

Wasted space

I hacked into the disk version of *1942* by Elite and guess what I found? It looks as though the programmers developed the game on Devpac. How do I know? Well, Peek the program yourself. There is a 6.25k text file from Devpac (Gena 3.1) within *1942*. What for, you may ask. In my opinion, the guys wanted to impress people by having a program which occupies 42k on the disk. It certainly cuts no ice with me. I call this childishness. They could have made better use of the memory space – like more planes, better graphics...

Miguel Rocha
Oeiras, Portugal

Speedy speeds

Seg Gorham's *Turbo* in Hot Tips 19 speeded up the saving of cassette programs. I prefer to use this method (464 only):

```
POKE &B8D1, &A1: POKE &B8D2, &17
```

Alex Aird
Birmingham

664 and 6128 owners can use `POKE &B1E9, &A1: POKE &B1EA, &17`

Line 0

Enter your line of Basic. For example, `10 MODE 2: ?"Hidden"`. List it to make sure everything is there. You can also run it to make sure it works. Then type in direct mode: `POKE 37Ø, Ø`. Try listing the program. Line 10 will have vanished. You can still run the program though. Go on – try it.

Justin Ledger
Winchester

Prime numbers

Primes play an important part in number theory and geometry; mathematicians since the Greeks have investigated their properties. They are also used in cryptogtraphy, for generating random numbers and for hashing in databases.

The one-line program generates the first 7500 prime numbers. It takes just under half an hour to run, so it seems a shame not to add a second line and save the data, which takes up 50k.

It should be possible to extend the program to calculate primes up to 10^9, the accuracy limit of the Amstrad. The results would have to be saved to disk, for there is no space to extend the data array. The second program allows you to find a range of prime numbers from among the saved data.

```
1 ' Prime generator
1Ø DIM p(75ØØ): p(Ø)=1: p(1)=2: p(2)=3: FOR n=3 TO 75ØØ:
   p(n)=p(n-1): ok=Ø: WHILE ok=Ø: ok=1: p(n)=p(n)+2:
   s=SQR(p(n)): m=Ø: WHILE ok*(p(m+1)<=s): m=m+1:
   d=p(n)/p(m): ok=d-INT(d): WEND:WEND: PRINT n,p(n):NEXT
2Ø OPENOUT"primdat": FOR n=1 TO 75ØØ: WRITE #9,p(n):
   NEXT: CLOSEOUT

99 ' Prime finder
1ØØ DIM p(75ØØ): p(Ø)=1: OPENIN "primdat"
11Ø FOR n=1 TO 75ØØ: INPUT #9,p(n): NEXT
12Ø WHILE -1
13Ø INPUT"Search from what number (Ø to quit) ";x
14Ø IF x=Ø THEN END
15Ø ok=Ø: x=x-1: IF x<Ø THEN x=-x
16Ø WHILE ok=Ø
17Ø ok=1: m=Ø: x=x+1: s=SQR(x)
18Ø WHILE ok*(p(m+1)<=s)
19Ø m=m+1: d=x/p(m): ok=d-INT(d)
2ØØ WEND: WEND
21Ø PRINT"THE NEXT PRIME IS:  ";x
22Ø WEND
```

David Pollard
Thames St, Oxford

HACKERS ONLY

The section that brings the CPC's darkest secrets to light. If you don't understand what's written here, bad luck. You'll get no explanation, for this is where the hackers hang out.

Bar-CPM to execute a file

Many readers have asked whether it is possible to run a file by issuing the `|CPM` command. As if that weren't enough of a challenge, others have requested a routine that runs a Basic file when you type `|CPM`. After several late nights this is the result:

When you type `|CPM` much of the system is shut down: interupts disabled, sound output stopped, external roms disabled and memory from &100 to the begining of the Basic variable area filled with zero-bytes. The surprising thing is that *most* of Basic's variables and the firmware remain intact. Then the contents of track 0, sector &41, load in at location &100 – the boot sector. A jump to this address follows.

With this knowledge it should be a simple matter to write a routine that executes from &100 and resides on the boot sector. The tricky part is loading and running a Basic file from machine-code. This is the shortest and simplest method I could think of:

```
ORG &1ØØ

LD C,&FF
LD HL,start
CALL &BD16        ;run program

start
CALL &BCCB        ;init all roms

LD C,Ø            ;determine version
CALL &B915        ;of Basic
LD A,H

CP Ø              ;if zero then 464
JR Z,is_464
PUSH AF           ;if not version 1.Ø
CALL lod_vars     ;then load in variables
POP AF
CP 1              ;check if 664 or 6128
JR Z,is_664
JR is_6128

lod_file

LD DE,&CØØØ       ;load in Basic file
LD B,8            ;called MENU.BAS
LD HL,name
CALL &BC77
LD HL,&17Ø
CALL &BC83
CALL &BC7A

CALL &B9ØØ        ;switch in Basic rom
LD HL,&8ØØØ       ;point HL to zero byte
DB &C3            ;auto-run Basic file
which
DW Ø

name

TEXT "MENU.BAS"

is_464

LD HL,&E9BD       ;if 464 then place
LD (which),HL     ;address to auto-run
JR lod_file       ;Basic in which

is_664

LD HL,&EA8Ø       ;if 664 then place
LD (which),HL     ;address to auto-run
JR lod_file       ;Basic in which

is_6128

LD HL,&EA78       ;if 6128 then place
LD (which),HL     ;address to auto-run
JR lod_file       ;Basic in which

lod_vars

LD DE,&CØØØ       ;load Basic variables
LD B,11           ;to location &AEØØ
LD HL,name1
CALL &BC77
LD HL,&AEØØ
CALL &BC83
CALL &BC7A
RET

name1

DB "BASVARS.BIN"
```

It's quite easy to place a machine-code program on the boot sector. You must remember that the program has to work from &100, though. As you can use the firmware you should have no trouble loading other machine-code files and generally causing havoc.

Basic starts at &170

Problems arise when trying to load and run Basic files. As there are three versions of Basic the first thing to do is discern which version you're using. Simple. `CALL &B915` will return the rom version in the H register.

I found it possible to load and run Basic programs on the 464 with no strings attached using the `|CPM` command. The 664 and 6128 are a different kettle of fish: locations &AE00 to &AE70 hold crucial data concerning the Basic file. These are reset when |CPM is entered. If you follow these steps then all will work correctly:

- load the Basic file you wish to run when you issue the `|CPM` command
- save the file "BASVARS",B,&AE00,&70
- enter the assembly listing
- save the object code by using the Basic listing
- make sure the Basic file you wish to run from `|CPM` is called "MENU.BAS"

Below is the Basic program that will save the object code (as long as it's loaded at &6000) onto the boot sector:

```
1Ø DATA 21,19,4Ø,CD,D4,BC,22,1A,4Ø
2Ø DATA 79,32,1C,4Ø,21,ØØ,6Ø,11,ØØ
3Ø DATA ØØ,ØE,41,DF,1A,4Ø,C9,85,ØØ
4Ø DATA ØØ,ØØ,ØØ
5Ø FOR t=&4ØØØ TO &4Ø1D
6Ø READ a$: POKE t,VAL("&"+a$)
7Ø NEXT: CALL &4ØØØ
```

Print out ...

Richard Monteiro discovers a package that improves the dot-matrixed word

Qualitas 464

Seven Stars Publishing, £9.95 tape, £12.95 disk

In issue 19 we reviewed *Print Master* from Siren Software. *Qualitas* is along similar lines: it is a print enhancement package. Unlike Siren's package it does not include routines to print graphics screens. What it does, though, is provide a simple method of reproducing high-quality typefaces on virtually any printer that uses standard Epson codes. It lets you use these typefaces from within your own programs and commercial word-processors – in particular, *Tasword* (or *Amsword*) and *Protext*.

The print quality from *Qualitas* is NLQ (near letter-quality) –

Future packages

Seven Stars is in the midst of producing extra fonts to be used with *Qualitas*. Several "packs" are promised: Roman, italic, the full *Tasword* second character set, foreign character sets, Olde English and Celtic. Almost completed is the first pack, Classic Pica. By the time you read this it should be in a presentable form.

At the moment *Qualitas* does not cover printers that have only double-density bit-image graphics. This will be rectified soon: owners of Mannesmann Tally MT80 and similar printers will thus be able to take advantage of this package. If you are uncertain about your printer's compatibility, phone Seven Stars.

even if your printer has no control-code options for it. The print-head achieves these results by doing several passes. True, this does slow output somewhat, but not unbearably.

Read the instructions before rushing into *Qualitas*. There is a complex setup procedure which you must complete before proceeding further. You are asked which word-processor you use, the type of printer and whether you have an eight-bit printer port. The last question may strike you as a bit odd since all Amstrads work on seven bits: fact is, more can be achieved with eight bits. For this reason two of the supplied fonts, namely Clarion and Mercury, won't have true descenders on letters like "g" and "y" (the eighth bit would rectify this). For printers, the system accepts Epson-compatibles and the Star Gemini 10-X. If you have anything else and know the control-code sequences it uses, you're in luck. A section in the setup program lets you tailor the program for your printer.

Once all the hassle of the setup file is a bleak memory, you can get down to some serious work – almost. If you intend using the package in conjunction with *Tasword* or *Protext*, you'll have to do a little more customization: a few of the printer codes need altering. Don't panic, it's all clearly explained in the *Qualitas* manual. That done, you can really roll. Make sure *Qualitas* is in memory, load your word-processor and you're away. Whenever you opt to print a document *Qualitas* will take control and make your print-head dance.

Qualitas remains invisible to your system until control code 25 is sent to the printer. Under *Protext* and *Tasword* this is printer control-code Q. This code enables you to switch between standard print and *Qualitas* quality. The results are impressive. However, much depends on your printer, the quality of your paper, the condition of your ribbon... As a rule of thumb, the better the printer, the more polished the print. Below are samples from two printers of varying quality. The differences are not that noticeable:

Juki 5510

the quick brown fox jumps over the lazy dog

pack my bag with five dozen liquor jugs

Amstrad DMP 3000

the quick brown fox jumps over the lazy dog

pack my bag with five dozen liquor jugs

Two fonts can be held in memory. Control I will alternate between them. All other printer functions – subscript, superscript, double-width and underline – work from *Qualitas*. Equal-space justification and proportional print can also be selected. Add to that double-height characters and you have a very professionaly finished page.

You are not restricted to using *Qualitas* from within a word-processor. Use it in your Basic or machine-code programs; you can even send listings to the printer. Five fonts are supplied on the cassette or disk: enough to be getting on with. If these don't take your fancy it is a simple matter with the font editor to create your

Works on all machines

Qualitas 464 is rather a misnomer – the program runs smoothly on all CPC machines. The "464" is to warn you that only *Tasword 464* and *464D* will work with *Qualitas* present in memory.

If you have *Tasword 6128* you need the disk version. It contains a little extra: *Qualitas 6128*, which lets you use *Qualitas* from within *Tasword 6128*.

Fonts and effects

Clarion abcdefghijklmnopqrstuvwxyzABCD
↑!"£$%&'()_=£@[]:: /.|{}*+<>?`

Elite abcdefghijklmnopqrstuvwxyzABCDEFG
↑!"£$%&'()_=£@[]:: /..|{}*+<>?`

Mercury efghijklmnopqrstuvwxyzABCDE
£$%&'()_=£@[]:: /..|{}*+<>?

Piazza *abcdefghijklmnopqrstuvwxyzABCDEF*
↑!"£$%&'()_=£@[]:: /..|{}+<>?`*

Pica defghijklmnopqrstuvwxyzABCD
£$%&'()_=£@[]:: /..|{}*+<>?

Seven Stars Publishing ☎ (06284) 3445
34 Squirrel Rise, Marlow, Bucks, SL7 3PN

GOOD NEWS

- Several pleasant-looking typefaces.
- Decent results even if your printer isn't.
- Can be customized to suit your setup.
- Possible to create new fonts.

BAD NEWS

- Too many setup steps – can be confusing.
- You first need to have a printer!

... print in

own. Or wait till Seven Stars completes its "packs".

Although work is needed to set the system to your taste, the results are magnificent. *Qualitas* gives elegance to otherwise average printers. It will also produce, with a little help from you, a page to be proud of.

Read pictures with your printer?
Yes, it can be done.
We test a clever gadget.

Image Scanner

Dart Electronics, tape and disk £79.95 – requires DMP printer

You would be forgiven for laughing if someone said a printer could be used as an *input* device. This was certainly my first reaction. But Dart Electronics (of lightpen fame) has done it. Using a combination of hardware and software with an Amstrad DMP 2000 printer, they have produced an alternative to the video digitizer.

Before you go rushing down to your local Scanner stockist bear in mind you need a DMP 2000 or 3000. The reason is that part of the hardware – the scanning head – slots into the print head of the DMP. It will fit only in these two printer models.

The Dart kit also includes an interface that slots into the expansion slot of any CPC model and software that gets everything ticking. The interface, which has a through-connector, can quite easily be mistaken for a hunk of plastic – the only distinguishing features are a knob on one side and a wire leading to the scanner-head.

But which digitizer?

You could loosely group Rombo's Vidi (the video digitizer reviewed in *AA* 15) and Dart's Scanner as similar products. However, Vidi grabs and digitizes moving pictures – it produces pictures using many grey-scales. The scanner reads still data such as a photograph or part of a magazine – the result is a two-tone picture. Vidi needs a video-recorder or video-camera before even starting, whereas Scanner needs an Amstrad printer (DMP 2000 or 3000).

The two devices have similar prices, but when you take into account the extras needed, the Dart Scanner is the more affordable.

proportional text	XV quick nyphs beg fjord
subscript superscript	abcdef$_{ghijkl}$mnopqr^{stuvwx}yzAB
double-width	yzABCDEFGHIJ hijklmno &'()_=
underline	abcdefghijklmnopqrstuv ↑!"£$%&'() =£@[]:; /..
double-height	ABCDEFGHIJKLMNOPQRSTUV abcdefghijklmnopqrstuv

Setting up the Scanner is no more trouble than eating your breakfast: plug the scanner-head and interface into the appropriate orifices, stick a vane on one side of the printer (which prevents it going too far left) and run the software program.

To input a picture, front-load it as you would ordinary printer paper; use tractor-feed and ensure the paper-thickness adjustment is set to thick-as-possible. The software displays a list of options: choose "scan" (making sure the printer is switched on) and you're away.

Dart's gadget scans across your paper, turning a line into a series of black or white dots – which appear on screen and in memory. Then the printer rolls up one line and the scanner reads it. Simple. The exact opposite of putting ink on paper.

If nothing appears or the screen fills up with black lines, turn the knob on the interface: it controls the brightness level.

I found it fairly easy to produce good results. Occasionally, however, the scan-head would catch on the side of the picture it was reading. This resulted in the printer doing loud impressions of a farm tractor. "Minutes to scan," claims Dart's blurb, but in truth it needs 10 to 15 minutes. Worse is the lack of grey-scaling. The pictures are black and white – nothing in between.

When scanning you have several options. For example, you can scan one or two screens, and choose the magnification: ×2, ×4 and ×6. With ×1, the screen image is the actual size of the original: about 8 inches by 5. The software can perform a few other tricks:

- PRINT sends the scanned picture to the printer (the opposite of scanning).
- You can LOAD or SAVE previously scanned pictures.
- With COPY AREA you can cut and paste areas of the screen. This can enhance the final image – or provide hours of entertainment doing photofits of your friends.
- SCROLL AREA lets you define an area and scroll the contents of the box in any direction. Useful for fine adjustment or detail.
- ZOOM/EDIT will blow up a section of the image. Then you can fine-tune the picture by plotting or unplotting pixels.
- BOX/BLANK places a box around a defined area and clears everything outside it. Then you can move this box anywhere on the screen – nice.
- CLEAR/AREA clears everything inside a defined box.
- ADD TEXT allows you to enter text anywhere on the screen. Handy for labelling or naming diagrams.
- VIEW SCREEN 1/2 selects the required screen to be displayed.
- FLIP SCREEN through 180 degrees.
- MERGE SCREENS will combine screens 1 and 2. The screens are XORed, which means interesting effects can result.

Although sluggish, the software contains enough to produce stunning pictures. It also allows a certain amount of tidying up and playing around. You could incorporate scanned pictures within *AMX Pagemaker* or build up an art gallery after they have been given the *Art Studio* treatment. The Dart Scanner is a fun package that may, unfortunately, be out of reach for many people's pockets.

Dart Electronics ■ (0502) 51 3707
Unit B5, Oulton Works, School Road, Lowestoft, Suffolk, NR33 9NA

GOOD NEWS	BAD NEWS
■ Good clear pictures appear on screen.	■ Head fits only DMP 2000 or 3000 printer.
■ Printer still operates with Scanner attached.	■ Only Mode 2 screens can be built up.
■ Photographs, text or drawings can be scanned with ease.	■ No grey scales – image produced is black and white.
■ An alternative way of digitizing pictures.	

Say it with silicon

Jones points Monteiro on the path to do-it-yourself publishing

Graham Jones
Desktop Publishing Companion
Sigma Press, ISBN 1 85058 078 2, 202pp paperback, £14.95

These days, it seems, all you need to emulate Rupert Murdoch is a computer and a laserprinter – and the top of a desk. The *Companion* assumes you have or will use computer systems and software in the £1,000+ bracket. A pity, as fair results (though not exactly professional quality) can be produced with your Amstrad and something like *AMX Pagemaker*.

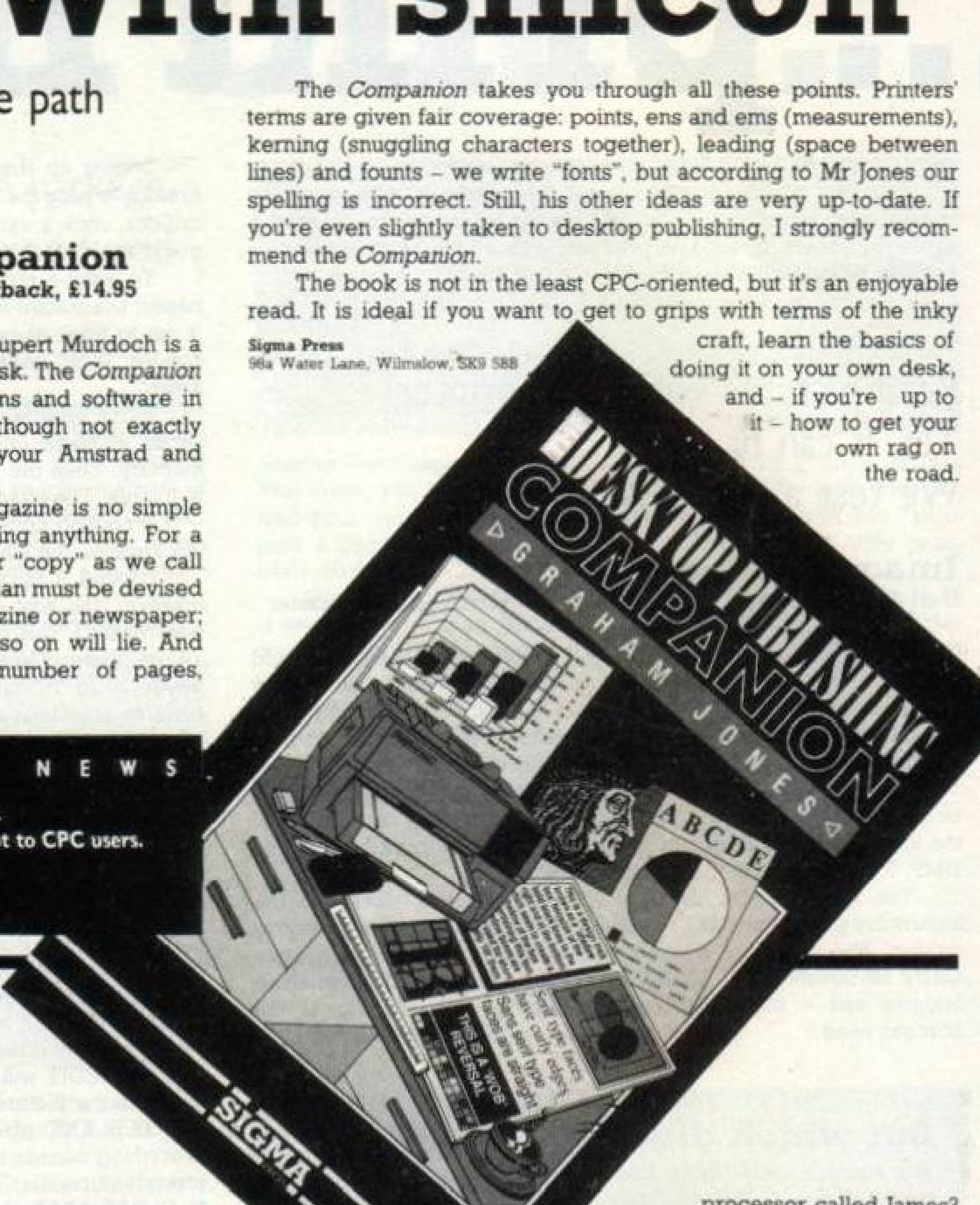
Producing a newsletter or a page for a magazine is no simple task: you must decide many things before writing anything. For a start you must work out the dates when text (or "copy" as we call it in the trade) must reach the editor. Then a flatplan must be devised – this is a representation of the complete magazine or newspaper; it shows where advertising, colour pages and so on will lie. And don't forget about paper size and quality, number of pages, typefaces and design in general.

The *Companion* takes you through all these points. Printers' terms are given fair coverage: points, ens and ems (measurements), kerning (snuggling characters together), leading (space between lines) and founts – we write "fonts", but according to Mr Jones our spelling is incorrect. Still, his other ideas are very up-to-date. If you're even slightly taken to desktop publishing, I strongly recommend the *Companion*.

The book is not in the least CPC-oriented, but it's an enjoyable read. It is ideal if you want to get to grips with terms of the inky craft, learn the basics of doing it on your own desk, and – if you're up to it – how to get your own rag on the road.

Sigma Press
98a Water Lane, Wilmslow, SK9 5BB

GOOD NEWS	BAD NEWS
■ Interesting reading even if you're not interested in the subject.	■ £15 is steep.
■ Good introduction to desktop publishing.	■ Not relevant to CPC users.



You can even write your own word-processor, as RpM reads

W. Simister
Simple Applications of the Amstrad CPCs for Writers
Bernard Babani, ISBN 0 85934 165 8, 79pp paperback, £2.95

If you have a disk-based CPC computer, an Epson-compatible printer and a desire to write a Basic word-processor less than 15 lines long, this is your book. The author wrote the original manuscript using the very program detailed inside.

The book has two uses: it teaches you how to make the most of Locomotive Basic and introduces you to word-processing. Word-processors can be complex beasts and coming to terms with one often takes longer than writing an article. Simister assumes you have never used a word-processor and supposes you'll never need to pay for one.

The book is humorous and makes compelling reading. It assumes you have no knowledge of Basic or the hardware you are using – several chapters take you by the hand, explaining all along the way. At times you may become confused: countless versions of the 15-line word-processor exist and many have peculiar names. Who's ever heard of a word-processor called James?

The book was apparently written when the DMP 2000 printer had just been released, for Simister adds a few chapters detailing its extra features. His word-processor, of no fixed name, gains italics, bold, underline and other options in the closing chapters.

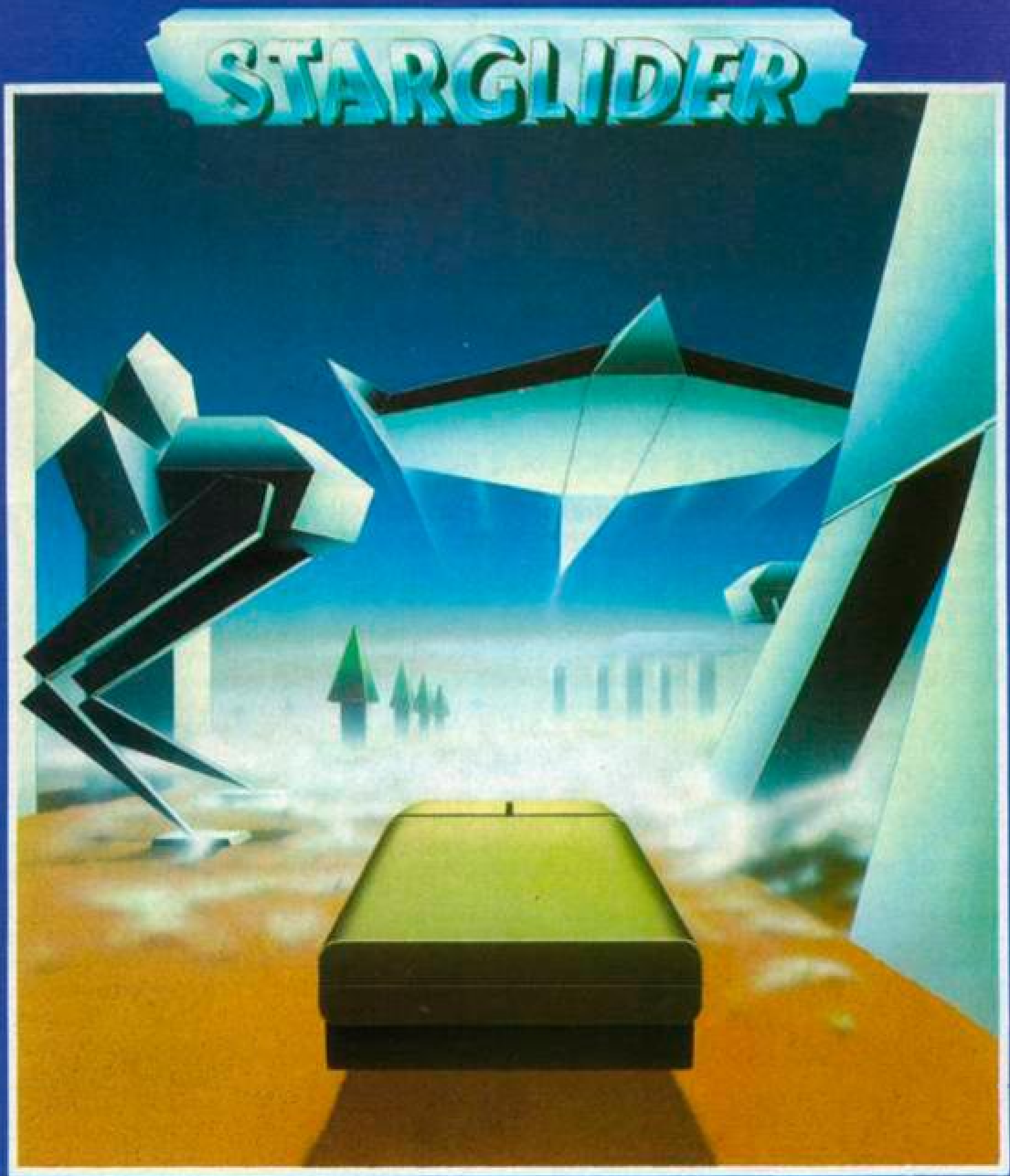
A book, of all things, should be as general as possible. It's a pity Simister wrote the book for a tiny part of the Amstrad computing fraternity. If *Applications ... for Writers* catered for both cassette- and disk-based users I would have no grievances. But it is useful only to those with the appropriate hardware.

Put aside the book's major shortcoming and you have an interesting and educational project to accomplish within its pages. The price also goes down a treat at under £3.



Bernard Babani (Publishing) Ltd
The Grampians, Shepherds Bush Road, London W6 7NF

GOOD NEWS	BAD NEWS
■ Less than the price of three magazines.	■ Disk-drive and printer needed.
■ Teaches you simple Basic programming.	■ The many versions of the word-processor may confuse.
■ Helps you become familiar with your printer.	



SENT TO CONQUER - MACHINE VERSUS MAN

Air to air and air to ground combat flight simulation

Defeat the elusive Starglider in an amazing all-action combat flight simulation. The planet Novenia has been devastated by an evil tide of invading Egrons; single-handed, you must wipe out the enemy in explosive one-to-one combat. Swooping down with lasers blazing, you'll need to take fast evasive action to avoid the barrage of enemy missiles. Exhilarating low-level attack and defence flight manoeuvres, coupled with a cunning strategic element, make STARGLIDER a classic among classics.



Energy towers lie dead ahead defended by heavily armed Egron battle tanks



A Stomper and Walker close in. Laser fire is futile against these metal monsters



The Walker attacks. Bank your craft to evade the lasers and prepare to fire



Missile launched! Steer your TV-guided missile on target to annihilate the invader



The Starglider swoops in to attack. Several direct hits are needed to destroy it



A special mission. A devastating super missile has been located in the ruins of Novenia

Screenshots taken from Spectrum 48/128 version

GET FRESH... GET... STARGLIDER

STARGLIDER has a starring role on ITV's top Saturday morning program GET FRESH for 17 weeks running until the end of August.
GET MUCKY is a nerve-racking competition to see which team can get the highest score on the award winning game, STARGLIDER

THE ULTIMATE

"The ultimate in blasters"
Amtix Accolade

Out of this World

"The graphics really are superb: fast-moving, colourful, excellent animation. The gameplay is out of this world"
Amstrad Action Mastergame



Amstrad CPC cassette

£14.95

Amstrad CPC disc

£19.95

RAINBIRD

Rainbird Software, Wellington House, Upper St Martins Lane, London WC2H 9DL
Tel: 01-240 8838
Rainbird Software is a division of British Telecommunications plc

Child processing

Can the kids come to create on the keys? Richard Monteiro has words

Junior-Wordpro

Ramasoft, £8.50 cass, £11.50 disk

There are not many educational or child-based programs. There are even fewer word-processors aimed specifically at children. In fact, the only other word-processor along these lines is Logotron's *Pendown* (reviewed in *AA* 18). Ramasoft has added another, *Junior-Wordpro*.

Don't expect much in the way of packaging or documentation: a standard cassette or disk box and a single photo-copied sheet are the sum-total. However, packaging only increases cost and documentaion is not always necessary. The instruction sheet claims *Junior Wordpro* is a gentle introduction to word-processing well as practical experience. The rest tells you how to load and start work using *Wordpro*.

If you're using a colour monitor, I pity you. The colours are garish and enough to put you off your food. Add to that a cursor that thinks it's a strobe-light and you're off to a bad start. Still, utility programs have never been noted for their beauty (except, of course, *Bonzo Doo Dah*). If you have a choice of monitor I recommend green. The screen, in 40 columns, consists of a couple lines at the top and bottom telling you what effects certain key combinations have. The space in between is for the written word.

Moving the cursor

Once the cursor flicks into view you can start hitting keys. Everything you type will appear on screen. If you hold down a key a character will appear and keep on appearing until you release the key – this is standard auto-repeat. The problem is that the delay before auto-repeat starts is too short. For children, who tend to deliberate over keystrokes, this is disconcerting.

Touching Control and the up-arrow key takes you to the top of your text or document. A similar key combination moves you to the bottom: Control down-arrow. But by the time you reach the end of the text you'll have forgotten why you wanted to get there. It takes a good 20 seconds – even more in a long file – for the system scrolls down one line at a time.

When you reach the end of a line, the computer beeps at you, and if the current word too long moves it to the next line, and moves the cursor down. This is "word-wrap." Great, but after a while the continual beeps drive you insane – turn the sound off.

Junior-Wordpro uses double line-spacing: there's a blank line after each line of text. This is a nice feature that makes easy reading for the kids. If you carry on scribbling to several screenfuls, you'll eventully meet an inverse line. This is a page-break – where the new sheet of paper will start when the printer does its job.

Function keys perform operations on your text or take you to other menus:

f1 takes you to the *choices* menu. From here you can choose to write, print, load or save text.

f4 centres text. Place the cursor anywhere on the line you wish to centre and press the function key. Centering is rapid – unlike certain full-blown word-processors (namely *Mini Office*).

f8 lets you insert characters.

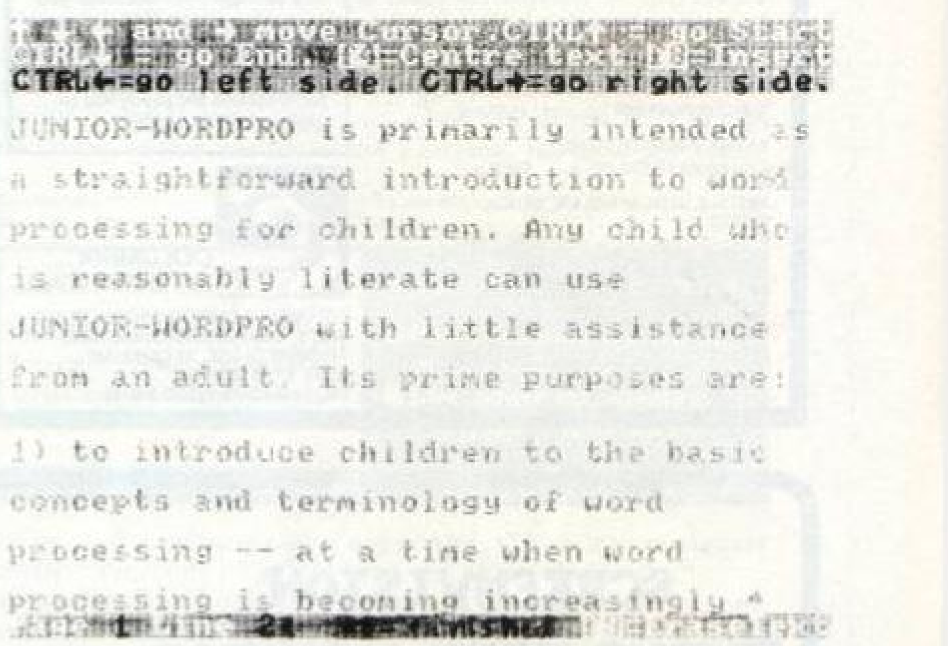
f9 enables you to erase the complete document.

Wordpro works in "overwrite" mode. This means that anything you type remains intact until you write over it. If you backspace over a word and try to insert a letter somwhere, the character that was there before will be replaced by the new one. This is not always desirable, which accounts for the "insert" function – it makes room for new characters.

Readable print

It is always thrilling to see your work in print. Pressing Escape or function key 1 gets you to the choices menu. From here you can elect to print out your document. The text is placed in the middle of the paper and is emphasized to make it as readable as possible. What you see on screen appears on paper.

Wordpro is rather a mixed bowl of fruit. On one hand it has juicy features for the beginner. On the other, there are pips that I feel will cause many people to spit out word-processing. Either hand in the pocket, the pricetag is reasonable.



Wordpro versus *Pendown*

Pendown looks as though many months were spent on its design – it is eye-catching and has bags of options. *Wordpro* is basic, short of frills, but ideal for the first-time user. It also costs half as much as its closest rival. I place *Wordpro* in the easy-reading-to-12-years range and *Pendown*'s upper limit higher.

Ramasoft ☎ (0763) 43715
6 Stile Plantation, Royston, Herts, SG8 9HP

GOOD NEWS	BAD NEWS
■ So simple it's child's play. ■ Cheapest word-processor on the market. ■ Double-spacing equals clear layout.	■ Takes an age to get to bottom of text. ■ Occasional sound drives you to suicide.

Superfile

A good little database for not much money, Pat McDonald finds

007 Superfile 2 & Listfile 3

ZX-Guaranteed, £9.95 tape, £12.95 disk – all CPCs

ZX-Guaranteed? That sounds like a contradiction in terms to me. What it really is is Geoff Bobker's Lancashire firm producing good utility software cheaply. Having bitten on the Spectrum software scene, his attention is now pointed at the Amstrad.

007 Superfile 2 and *Listfile 3* are both supplied on one tape for one price. They are two separate databases – programs that store one large block of information and let you categorize this information however you want – and differ in their capabilities and uses.

Superfile is similar to a card-index system. It can store up to 500 different cards (called *records*). On each you have up to nine different *fields*: one of these is a *sort field* (more of that later) and the other eight can hold a line of written notes, up to 25 letters long. Say you wanted to store all the members in a club. Each member would have a separate record. On all records, the first full field would have the member's name, the second the address, the third the telephone number, and so on.

Memory limit

If you need to use all eight fields on each record and fill them to capacity, the program will run out of memory after 106 have been entered. After this, you would need to start a fresh database.

You can categorize each record by the sort code. To the machine, this is just a single letter or number, but you could assign a different meaning to the code. For instance – you decide to split up the club into life members and people who subscribe. The life members have a sort code A, and the subscribers have B. If you want to print out a list of subscribers, simply tell the computer to print out all records with a sort code of B. Up to 62 categories can be used.

Listfile is far less flexible. It simply stores up to 1,000 records, each of which is just one line long. This is for a simple index of a large collection which does not require a large amount of information to be stored in each record, – for example, a list of all the Amstrad programs you own.

Fast searches

Both of the programs let you display records, search for strings and print out individual or groups of records. Most of the programs are written in unprotected Basic. The search routines, however, are implemented in machine-code, and so are relatively fast.

Now to the fly in the ointment. The manual for these programs is muddy to say the least. Prepositions seem to have been lifted out of their positions and thrown into a black hole. The worst offender is this: "...CALL POLICE by entering GOTO 999." If, after reading that, you should type CALL POLICE, the machine resets and loses all your precious data. I will grant you that the manual is intelligible, but I think manuals should reduce head-scratching, not increase it.

Verdict: For this price, the programs themselves are average in terms of money versus performance. The manual should be properly edited. If you want to see what a database is and how they work, for no great price, this is not a bad buy. If you want to have some power behind your database, I suggest you look elsewhere.

AA

ZX-Guaranteed ☎061-766 5712
29 Chadderton Drive, Unsworth, Bury, Lancs, BL9 8NL

GOOD NEWS	BAD NEWS
■ Cheap for a database. ■ Programs mostly explain themselves and are friendly in use.	■ Manual is unclear (but not ambiguous). ■ Lacks power and capacity of more expensive databases.

X-Basic

Extend your Basic with Siren's help – Richard Monteiro tries it out

X-Basic

Siren Software, £9.99 disk only

If the title *X-Basic* causes a stirring at the back of your mind it's because it has been on the streets before – in fact, almost two years ago. At that time it was sold by Cresent Software and retailed for £9.99 on cassette. Siren has repackaged it, rewritten the manual and repriced it. But, does it stand the test of time?

X-Basic is another of Siren's budget utilities. As with his other budget titles, Simon Cobb of Siren has released the program on disk only. A pity – as these programs would be appreciated also by those with cassette systems. And it would no doubt be received more favourably at the lower price of cassettes.

When I receive a program of this sort, it is always pleasant to find a demo on the disk. The demo supplied with *X-Basic* is fairly neat when you consider *X-Basic* consists of only 2k of relocatable code. As with most utility programs, extra commands are introduced to the system in the form of RSXs or bar commands. A total of 58 new commands are added. You can certainly spice up your system with that lot. I mentioned that the program was relocatable: if you have other things present in memory you can avoid a clash and locate *X-Basic* anywhere.

Listing all *X-Basic*'s commands is pointless and makes stodgy reading. As acompromise here is a selection of the more useful commands and what they can do:

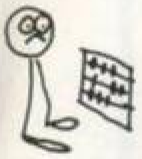
`|LINE.W.LEFT` scrolls any part of any line left. (There is an equivalent command to go right.) You can have wrap-around or not.
`|WINDOW.UP` scrolls a defined window up a certain number of lines. The scrolled lines are filled with a selected ink.
`|SCROLL.DOWN` scrolls the whole screen down by a chosen amount.
`|WAIT.KEY` waits until a certain key is pressed before continuing.
`|READ.CHAR` returns the Ascii code of a character on the screen at the current cursor position.
`|GR.MODE` selects the graphic mode – choice of XOR, AND, OR or forced (new ink replaces old ink).
`|SLOW` allows you to slow down the operation of any program. Helpful when debugging.
`|EXPAND.FUNC` enables you to expand the function key buffer from its default setting.
`|BIG` produces double-height characters.
`|INVERT` turns a character on its head.
`|INSERT` allows you to mix machine-code with your Basic listings.

As you can see from this selection, *X-Basic* offers a fairly comprehensive set of commands. There are others that you may use very occasionally, but it's good to know they are at hand. It's only when you get down to programming that you discover how useful *X-Basic* is. It can shorten your listings quite considerably and will add that extra sparkle. Two years have passed since *X-Basic* first reared its head and in that time many utilities have appeared. However, I am sure there is still a home for a competent package.

AA

Siren Software ☎ 061-228 1831
2 Oxford Road, Manchester, M1 5QE

GOOD NEWS	BAD NEWS
■ Adds 58 useful new commands to Basic. ■ Comprehensive manual. ■ Demo program is interesting and instructional. ■ Budget utility.	■ 1985 program may not meet demands of 1987. ■ Some commands hard to remember: keep manual handy.



Home is where the cash is

Patrol your purse-strings with this package: Pat McDonald peruses it

The Home Finance Program

Datavise, £24.95 disk – 6128 only

Datavise of Northern Ireland has been developing *The Home Finance Program* for around three years. Like *PlanIt*, a suite from Database Software which included a home accounts program (reviewed in issue 18), *HFP* makes some pretty big claims. Unlike *PlanIt*, by and large it delivers.

HFP runs within the CPM Plus operating system, and so will work only on the CPC 6128 or either of the PCW machines. It comes on both sides of a single disk. To use it, you must supply two other disks – one for the program, and the other for your data.

Datavise has made the setting-up procedure as simple as possible. First you must enter CPM Plus and use Disckit3 to copy your system disk onto side A of your disk. Then you run a special program on the master disk supplied with *HFP*. After answering some prompts, the machine will start copying the real program onto both sides of one of your blank disks. This entails your pressing the Return key a few times and flipping the disk over when asked to.

If you have only one disk drive, you will find yourself flipping disks over quite a lot, both in setting up and using *HFP*. The reason is that the program is very large and just will not fit on one side of a disk.

Before you can start tapping your financial fistory into your computer, you must first open a folder for your information on your data disk. The *HFP* will do this for you, asking for a name and a date from which to start that session. One folder can hold data covering 18 months to 2 years, so if you use one per year you will have ample space for comments.

Fill in the facts

Once you have a folder in which to store information, you can enter some basic facts about your finances. You can tell it about all the different accounts you have – all the places where you store money, be it bank account, wallet or a mattress. Up to 15 different accounts can be handled at once, and they can be deleted and moved around in their reading order quite easily. The *HFP* also asks about your headings – the different categories on which you spend money. These can be rent, gas and electricty bills, rates and so on. Again, they can be rearranged and deleted, and sorted alphabetically. Up to 16 of these can be supported – this may not seem enough, but read on.

Once you have entered all accounts and headings, you can begin a financial session. This gives you five options:

Budget: Some headings might have to be paid a certain obligatory amount, for instance rent. Budget does not move money about: it merely serves to notify that money is needed for that heading, but has not actually been paid.

Allocate: This option will take an amount of money, put it into an account and then earmark it for a heading. The amount will be added to the account.

Spend: This represents money actually taken out of an account and paid into a heading. The account is reduced and the money spent is added to a running total.

Transfer: This represents money taken from one account and placed into another, but earmarked for a particular heading. Say you had a bill and wanted to pay it by cheque but did not have enough money in your bank to cover the cheque. You could transfer cash from your pocket into the bank, and write your cheque.

Move: Say you had received a large cheque and had allocated it to a holiday heading. Suddenly you get a final demand on the gas bill and you must move the money from the holiday heading to the gas-bill heading, but it is still coming from the same account.

Each of these specifies what categories it wants you to type in. You can also add a comment, to specify details of the transaction – this is why I said 16 headings should be enough. You could specify a special heading for one-off payments and odd expenditure.

Foiling fakers

Once these details have been entered, you can view them but you cannot alter them. If you want to correct an entry, you must make a fresh one, adding or taking away money from a heading and explaining your actions from within the comment. The idea is to make your financial history secure – details cannot be easily faked.

The program is very user-friendly, employing menus and prompts. You can easily print out financial transactions (if, of course, you have a printer) and can specify just one or groups, and your account and heading status, showing how much money is in each. If you become unsure what to type, a help option is included. This will print a help screen, explaining just what the program is expecting. You can edit these help screens if you think they could be better put – or if, as the manual points out, you don't understand English very well.

Entering accounts and headings into the computer need not be laborious. The program checks letter by letter what you are typing, and compares it to the accounts and headings in memory. For example, if you have two accounts, Midland and Natwest, simply typing M will select Midland.

FOLDER: SMITH87 FINANCIAL SESSION 14 Jun 87 HFP

HEADING	Current	Deposit	Abbey Nat	Visa		HEADING
Clothes	20.00	30.00	0.00	-12.95		Clothes
Coal	4.95	0.00	0.00	0.00		Coal
Holidays	0.00	0.00	10.00	0.00		Holidays
House	89.75	0.00	0.00	0.00		House
Transport	238.11	0.00	0.00	0.00		Transport
TOTALS	352.81	30.00	10.00	-12.95		TOTALS

Action: | TAP EXIT for HELP | RETURN active

SPECIAL KEYS: | SCREEN 1

FOLDER: SMITH87 FINANCIAL SESSION 2 Jan 88 HFP

HEADING	BUDGETED	EARMARK	ALLOCATED	SPENT	AVAILABLE	HEADING
Clothes	200.00	150.00	50.00	12.95	37.05	Clothes
Coal	750.00	680.00	70.00	65.05	4.95	Coal
Holidays	400.00	390.00	10.00	0.00	10.00	Holidays
House	1,200.00	3,000.00	200.00	110.25	89.75	House
Transport	2,500.00	2,250.00	250.00	11.89	238.11	Transport
TOTALS	5,050.00	4,470.00	580.00	200.14	379.86	TOTALS

Action: | TAP EXIT for HELP | RETURN active

SPECIAL KEYS: | SCREEN OV

The manual takes you slowly through stages, explaining things as logically as possible. Sometimes I needed to read over a paragraph and think about what was written, but the manual supplied plenty of examples and was very helpful. Face the fact that you must be committed to putting your finances on computer and throwing away all those ink-stained, scrawled-on envelopes.

In a nutshell, *HFP* provides you with an accounting system. It helps you to budget your money on neccessary expenditure and save those odd amounts which otherwise would be frittered away. It provides you with a fairly secure financial record, and lets you see how much you are really spending. All the maths operations are handled by the computer, and you can see just what is going on. It's not a magic wand; if you have not got the money coming in, this will not help. *HFP* needs a lot of determination to make it work, but I think the results are very impressive. It can't handle amounts over £99,999 – if you're in that bracket, the manual advises you to get an accountant instead.

Datavise ☎(03967) 78215
30 Drumnaquoile Road, Castlewellan, Co Down, BT31 9NT

GOOD NEWS	BAD NEWS
■ Potentially very useful.	■ Lots of effort needed to start off (but less later).
■ User-friendly.	■ Annoying to swap disks if you have only one drive.
■ Good manual.	

CARTOON'S MOST ELUSIVE CHARACTER HAS FINALLY BEEN TRAPPED.

ROAD RUNNER*

THE ARCADE SMASH HIT THAT RECREATES THE SPEED AND EXCITEMENT OF THESE CLASSIC ENCOUNTERS.





Young or old, whatever your age everyone enjoys the antics of the cunning Road Runner as he baffles and bemuses poor Wile E Coyote. Or does he?...

This is your chance to really find out as you take on the role of Road Runner in this comic, all action extravaganza that recreates these nail biting chases and the fast moving excitement to perfection. Speed through canyons and along the highways following the trail of birdseed left for you to feed on (is this the first trick???) Dodge your way round the onrushing trucks keeping an eye out for the perilous mines and feather ruffling, leg busting oil slicks. What dastardly plans has the sleazy Wile E Coyote got in store for you as he lurks in hiding, cowardly awaiting his moment to enjoy a succulent roast of "Road Runner and French Fries".

We're sure you'll overcome all the dirty tricks he can throw at you with ease, agility and grace and a haughty "Beep Beep". Overcome them that is if you've got nerves of steel, the reflexes of a wildcat and the speed of the fastest bird on two legs, otherwise its sorry, goodnight and "Burp Burp"!!!

CBM 64/128 TAPE **£9.99** DISK **£14.99** **ATARI ST** DISK **£24.99**
SPECTRUM 48K TAPE **£8.99** **AMSTRAD** TAPE **£9.99** DISK **£14.99**

ATARI GAMES



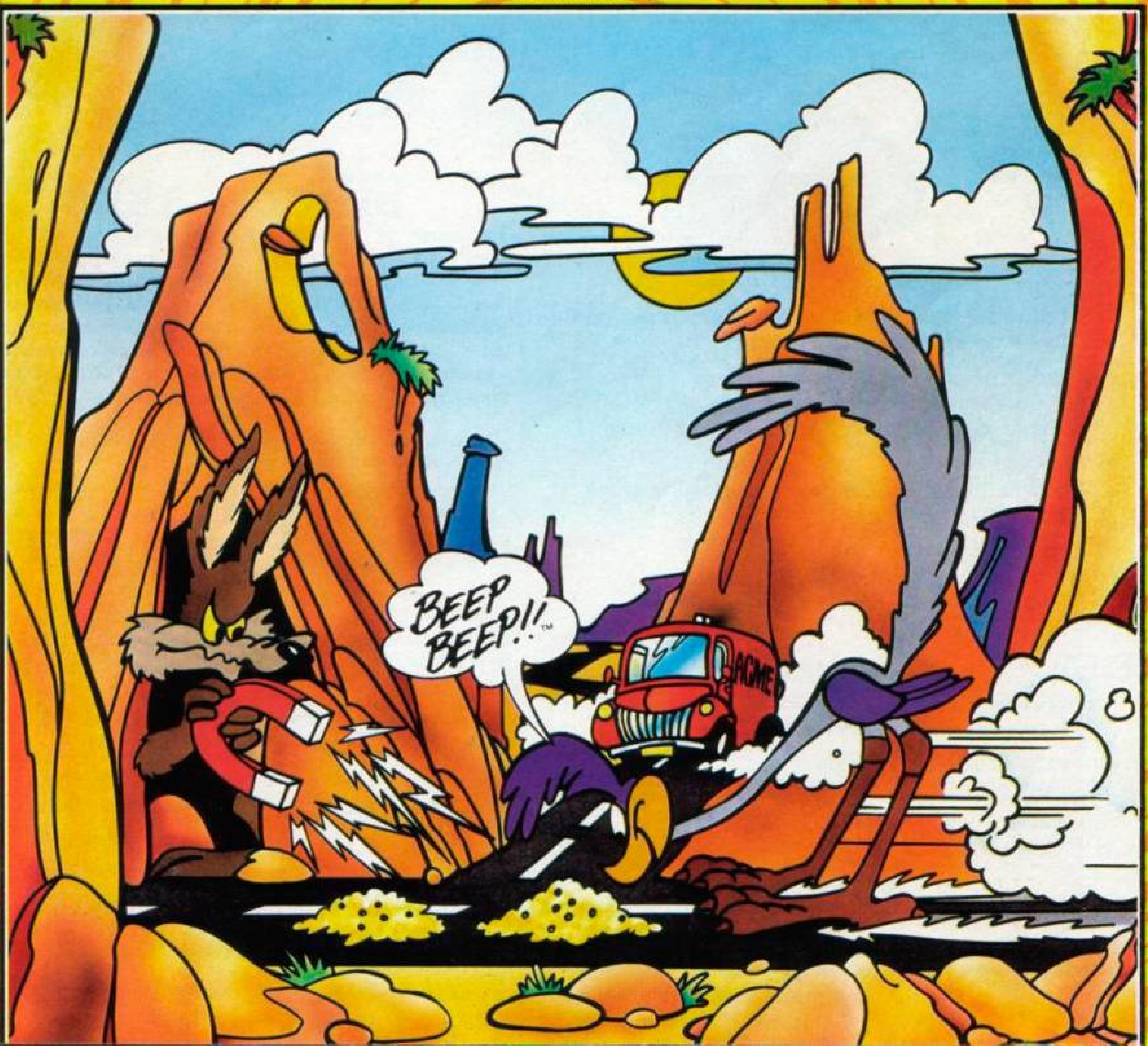




SCREEN SHOTS FROM ARCADE VERSION.

U.S. GOLD AI American Software

U.S. Gold Ltd.
Units 2/3 Holford Way,
Holford, Birmingham
B6 7AX.
Tel: 021 356 3388.



Silicon slices

Loads of prizes must be won: disk drives and Amrams up for grabs

Silicon Systems, producer of sophisticated hardware gadgets, is giving you the chance to win the hottest plug-ins available. Four fabulous prizes are offered exclusively to *AA* readers:

- **first prize – a £200 MEGADRIVE (5¼-inch or 3½-inch)**
- **second prize – a £100 AMDRIVE**
- **third prize – AMRAM II, worth £80**
- **fourth prize – the original AMRAM, worth £40.**

To lay your hands on these unbelievable goodies, just answer these four multiple-choice questions. Just put a tick in the box you think represents the correct answer. Each question can have only one answer, so don't tick every box!



Megadrive

A superb second disk drive for your Amstrad. There are two models: the 5¼-inch version (uses the big floppy disks which today commonly cost less than £1); the 3½-inch drive is similar to the ones found on newer Apples and Acorns and latest IBM PCs. They store an incredible ... (sorry, it's one of the questions) ... a lot – more than twice as much as the standard 3-inch Amstrad drive. Megadrive comes with an interface and is ready to run. Compatible with Amsdos, CPM 2.2 and CPM Plus it's undoubtedly the best. (Reviewed in *AA* 20.)

Amdrive

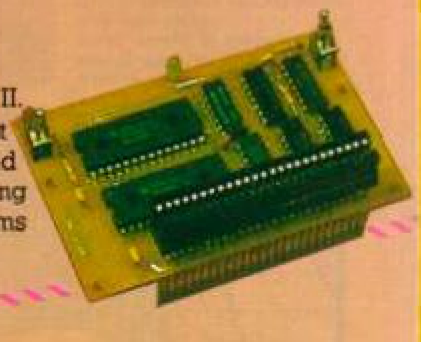
This is a standard 3-inch drive for your Amstrad. No need for special interfaces – it plugs directly into the second disk-drive port (or into the connector found in the ribbon cable if you own a 464 with disk drive). The most compact and visually pleasing drive on the market: stacks neatly atop the existing 6128 or 664 drive. Comes with power supply and connector.

Amram II

A revolutionary piece of hardware. It plugs into the expansion socket giving you room to plug in four external roms. Has 32k of ram and software that lets you manipulate it. Great for developing your own rom software or playing around with other roms. It even has a reset switch to avoids unnecessary wear of Arnold's power switch.

Amram

This is the little brother of Amram II. It has 16k memory, diode lights that let you know what is happening, and software. With it you can edit existing roms, create your own rom programs and store them in the 16k memory. (Reviewed in *AA* 19.)



1 The Megadrive is big on storage capacity. But just how much data can it hold?

☐ 1006k ☐ 706k ☐ 456K

2 How many disk drives can you attach to your Amstrad without any hardware modification?

☐ 2 ☐ 3 ☐ 4

3 What name is given to the important chips inside Amram?

☐ Sideways ram ☐ Erasable programmable rom ☐ Eeprom

4 What does RAM stand for?

☐ Read-write memory ☐ Random-access memory
☐ Read-all memory

Send either a photocopy of this sheet or the original page to: Silicon Slices, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ.

If I win first prize, my choice of Megadrive is:

☐ 5¼-inch ☐ 3½-inch.

Name: ....

Address: ....

....

....

Postcode: .... **Telephone:** ....

Silicon asks ...

The people at Silicon Systems in Manchester are constantly striving to bring you the best in quality and design. They have several new hardware projects on the drawing board. To help them help you, they have compiled this questionnaire. You are not obliged to answer the questions; it does not affect your standing in the competition – but, as an incentive, you can claim a £3 discount next time you order direct from Silicon Systems.

a If there were a 20-megabyte hard disk available for the CPC range (costing around £400) would you:

☐ Rush out and buy it ☐ Be interested, but want more information
☐ Be curious ☐ Not bat an eyelid

b If the 20-megabyte hard disk were too costly or not of interest would you consider a 10-meg model costing around £350?

☐ Yes ☐ No

c Silicon is thinking of producing an Eprom programmer that can blow roms up to 32k. Would you buy it if it met your specification and cost under £40?

☐ Yes ☐ No

d If you could buy a Midi interface for your Amstrad, what synthesizer would you want it to have software for?

....

e What item of hardware or software would you most like for your computer?

....

Just tick or write in your answers as appropriate. Leave the questionnaire attached to your competition entry and send it all in the same envelope.

HYDROFOOL

"...Worth shelling out for..."
The Woolwich Arsenal Times

"...A game for the hard of herring..."
'Hearsay' Magazine

"...Whale Kipper Whelk home in the Eel-side..."
Cardiff Choir News



"...Gave me a bad Haddock and made me a nervous wreck..."
Mrs. Lighthouse

"...Very fishy..."
Society for the Preservation of the Obvious.

"...Could have filled the Halibut Hall..."
André Prawn

FTL

FASTER·THAN·LIGHT

Featuring...

HYDROMATION

SPECTRUM £7.95 AMSTRAD £8.95

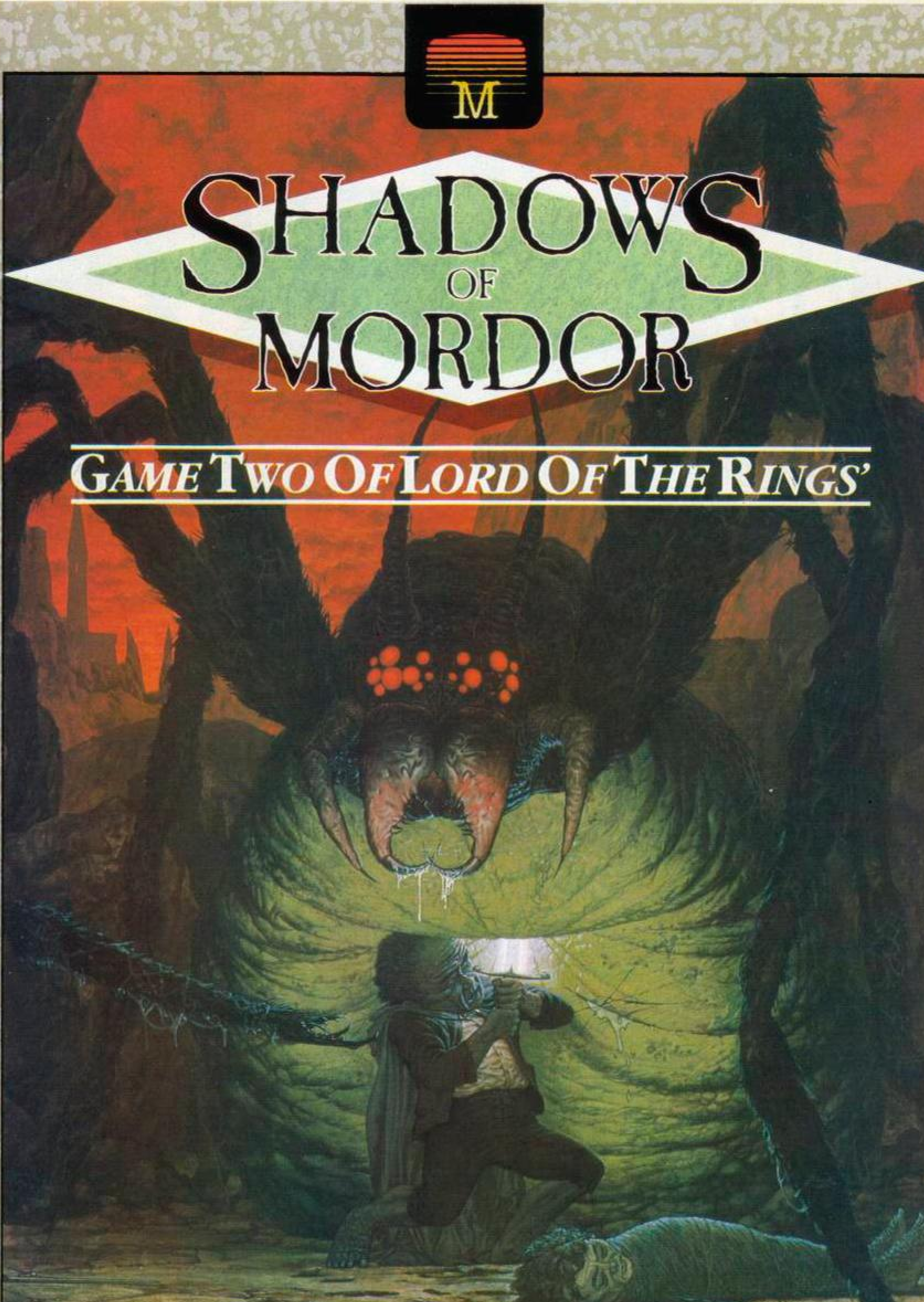
AVAILABLE MID-MAY

Fresh from his dismal triumph on Knutz Folly, Sweevo is thrust onto the watery world of **DEATHBOWL**, a planet which, for no good reason, has been converted into a gigantic aquarium.

Will Sweevo succeed in his mysterious mission — or will the Great Bowl-Keeper pull the plug on him?

HYDROFOOL is a fast, 3-D, seek, chase, puzzle and laugh game, featuring the fabulous but irrelevant **HYDROMATION.**

FTL FASTER THAN LIGHT, CARTER FOLLIS GROUP OF COMPANIES, SEDGLEY ROAD EAST, TIPTON, WEST MIDLANDS DY4 7UJ. Tel: 021-557 2981 (4 lines)


M
SHADOWS
OF
MORDOR
GAME TWO OF LORD OF THE RINGS'

A day in the life: A-rockin' and a-writin'

Malcolm Arnold last August left his career teaching art in a Yorkshire comprehensive to "pursue more fully his own creative projects" – which include writing and playing in a rock band. Here's how his 6128 helps him survive a busy weekend.

Saturday, 8:30am My wife Margaret and our two girls, Beth and Lucy (aged 3½ and 1½) are still languishing in bed while I frantically type lyrics into Astrid, our 6128. My mate John Dolan – the co-writer, co-player, co-dogsbody of our band "Hieronymus Quirk" – will be knocking on the door in the next 15 minutes to load up the car for our rehearsal at 9:30, and I'm not even dressed. Brushing the toast crumbs from the printer, I leave Astrid to it and beetle off to the bathroom while she commits our classic words to hard copy.

9:30 The rest of the band are really impressed with the professional finish the printer gives the lyrics – especially the way we have to stickytape the entire 10-foot printout to the wall to read it because I forgot to select the print menu's "form feed at page breaks" command. We've just acquired a midi-compatible poly-synth, and – as we already use sequences triggered from a drum machine – our thoughts turn toward more sophisticated computer and midi use. We all agree it's a good idea; now all we need is some of that blue or brown folding stuff.

2pm I return from the rehearsal. Lucy is having her afternoon nap and Beth is next door bothering the neighbours. I tiptoe past Lucy's door and up to the study, where Margaret is alone at the keyboard producing a handout for one of the casses she teaches. This is extremely adventurous of her, as she must be one of the few people in existence who can crash *Tasword* on a regular basis. Her school has BBC Micros, and recent experience of crashing both *Wordwise* and *Interword* seems to have given her fresh confidence.

Sweet and tidy

3:30pm finds us at the supermarket. I head straight for a display of Ferrero Rocher chocolates and inspect boxes trying to find the least scuffed and scratched one. The onlooking salesgirls think I'm a right nutter, and though I might agree in general terms, this specific instance isn't one of temporary insanity. I like to keep my three-inch disks in their cases and I've found that – with their lids removed – these clear plastic chocolate boxes comfortably rack seven disks in cases, with room at the side for three boxed cassettes. Side by side on the shelf next to Astrid's desk the boxes look quite snazzy and hi-tech. The chocs aren't too bad either!

9pm Margaret and the girls have gone next door to babysit for our neighbours. I am in the study finishing off collating the final draft of my first novel, entitled *The Orb*. This week it begins the eternal round of publishers – wish me luck! Margaret typed the first draft on our faithful old electric portable. When we got Astrid in June 1986 I began transferring it to disk. Although I did rewrite at this stage quite extensively, it was inevitable that a fair proportion of the exercise was straight copy-typing and could have been quite tedious. However, being the first time I'd used a word-processor, it became quite a pleasant voyage of discovery: finding my way around *Tasword*, and gradually reaping the benefits of Astrid's super-smooth keyboard in considerably increasing my typing speed. There's nothing like writing 25 chapters or so to build a tactile – nay, *sensual* – relationship with one's Amstrad.

The collating done, I break out the *AMX Pagemaker* and design a terribly impressive frontispiece. How can the publishers resist? I'm sure they'll find a way...

11pm Too tired for getting hopelessly lost in some programming. I'm a complete novice – still wide-eyed to the mysteries! Instead, I reward myself for a good job jobbed with a bleary-eyed game of *Tau Ceti* – eat hot laser, alien creep! – until the family return, and then to bed.

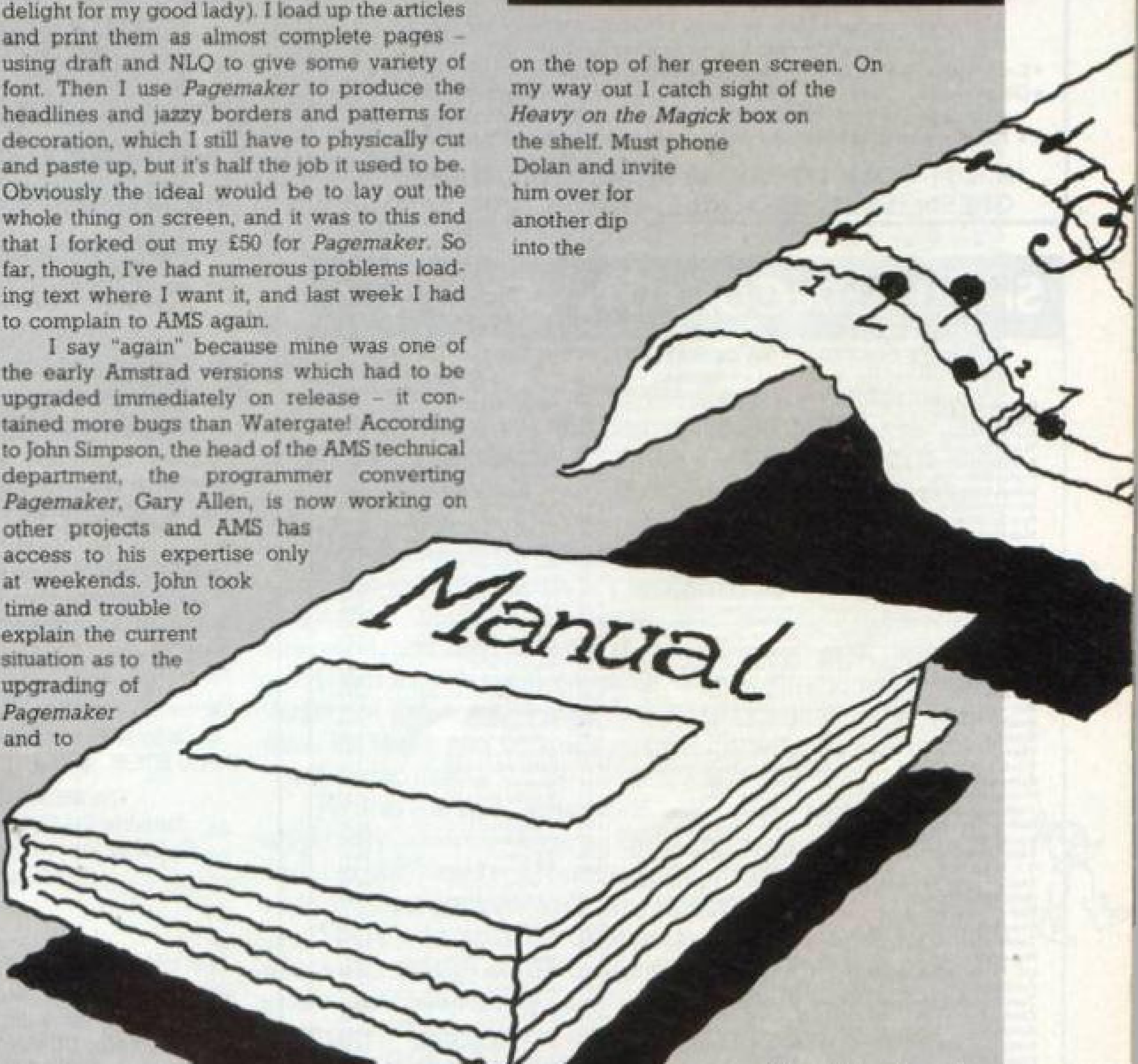
Sunday, 9:30am Family Communion at our church. Today Margaret and I collect the articles from fellow parishioners for the monthly magazine. She edits it and I lay it out. Before Astrid the job was all typing, scissors, glue and *hours* of Letrasetting. But now...

1pm I watch *The Tube* with the kids while Margaret's typing the articles onto disk.

Pagemaker perseverance

3pm The changing of the guard – if not the nappy (Lucy's usually about due by now, and of course I've had the sense to save this delight for my good lady). I load up the articles and print them as almost complete pages – using draft and NLQ to give some variety of font. Then I use *Pagemaker* to produce the headlines and jazzy borders and patterns for decoration, which I still have to physically cut and paste up, but it's half the job it used to be. Obviously the ideal would be to lay out the whole thing on screen, and it was to this end that I forked out my £50 for *Pagemaker*. So far, though, I've had numerous problems loading text where I want it, and last week I had to complain to AMS again.

I say "again" because mine was one of the early Amstrad versions which had to be upgraded immediately on release – it contained more bugs than Watergate! According to John Simpson, the head of the AMS technical department, the programmer converting *Pagemaker*, Gary Allen, is now working on other projects and AMS has access to his expertise only at weekends. John took time and trouble to explain the current situation as to the upgrading of *Pagemaker* and to reassure me that I wouldn't have to wait too long for my new upgrade, with all my problems solved. I put the phone down happy – it's nice when you feel the customer actually matters.



9pm The magazine master pages are finished and ready for photocopying tomorrow. I switch off Astrid and pat her tenderly on the top of her green screen. On my way out I catch sight of the *Heavy on the Magick* box on the shelf. Must phone Dolan and invite him over for another dip into the labyrinth next week. Maybe one day we'll find the exits. It could take years – we've been playing it since last June!

But now I really should go downstairs to see something of my wife before this weekend evaporates entirely! Mind you, another quarter-hour of *Tau Ceti* wouldn't hurt – or maybe 20 minutes...

Click! Hello again, Astrid!

ACTION TEST

MASTERGAME



RAVES

GAMES TESTED

Originality vs addiction

One continual problem in software reviewing is the importance of originality, strongly highlighted by the games reviewed this month. On the one hand you have *Arkanoid*, a supremely addictive game that you'll find impossible to put down. But on the other hand you find *Passengers on the Wind*, a totally original concept full of innovation.

Both games have their drawbacks. *Arkanoid* is basically a *Breakout* clone and bound to annoy many people as just an unoriginal rip-off, while *Passengers* is relatively short on gameplay and won't appeal to those just looking for a quick zap.

We plumped for *Passengers* because if there's one thing this industry needs it's imagination, innovation and originality. You may disagree, but there's no pleasing everyone. Just bear in mind that market forces determine what software houses produce. If you buy a particular variety of game you'll soon find clones coming out of your ears. I'll leave you to work out the consequences of that. 'Nuff preaching.

Hydrofool and *Amaurote* also score highly on the originality stakes. *Hydrofool* stars the robotic wally Sweevo and has lots of humour. *Amaurote* is a graphically superb game packed with atmosphere.

There's an absolute mountain of games still coming out, even though summer is upon us and both software sales and advertising are doing their usual summer swandive. There are plenty of good products among them, so if the Raves don't take your fancy something else will.



AMAUROTE

Mastertronic, £2.99 cass, keys only

I praised Mastertronic for its originality last month and I hate to get stuck in a rut but the big M has done it again. It really is quite amazing to see games of this class being sold as budget. Mastertronic is the most long established of the budget houses and if it keep giving this sort of value for money it'll be known as the People's Software House.

The game is a 3D battle against a horde of insects that have invaded 25 areas of your home city, Amaurote. The aim is to eradicate all traces of insect life in the city so that the inhabitants can return.

The first thing that strikes you is the quite superb on-screen presentation of the game. You might be fooled into thinking you were looking at an Atari ST or an Amiga if it weren't that there are only a couple of colours. You begin by viewing a map of the 25 districts and choosing one using a four-legged, spider-like vehicle.

This vehicle is the Arachnus and it's delightfully animated, crawling about looking like a relative of Toot. It has a hole in its top from which you can lob bombs in the direction you're moving. The bombs will bounce across the ground, Barnes Wallis-style, until they hit something.

Once you arrive in one of the districts there's no turning back: you'll have to clear it of insects before returning to the city map. The scenery is stunning. It's all the same colour, but colours vary from one district to another, and the detail of the buildings and other ground objects is excellent.

The only other thing that moves in the game is the insects, which are all the same and look like wasps. They exhibit different behaviour patterns depending on the state of events. In each district there's a queen who controls the other insects; she also has to be destroyed.

SECOND OPINION

Undoubtedly the most graphically spectacular budget game to date. The detail is unbelievable, the animation is a treat and stereo sound-effects are better than those from Aliens. Unfortunately gameplay is a trifle slow, but that's a minor point when the visual and sonic aspects are taken into account. Amaurote shows what can be done on the Amstrad – come on, software houses, follow this example. **RpM**

GREEN SCREEN VIEW

Much of the game is mono-coloured, and on many levels things are impossible to see. This makes the game unplayable.

The insects can be destroyed with the ordinary bombs but the queen needs something stronger, a "supabomb". While the queen is alive some of the insects will home in on you, making them easier to kill but also making damage to your craft more likely. Others will go about their business and ignore you.

Once the queen is destroyed any remaining insects go into aimless wandering patterns, making them very hard to destroy with your unwieldy bombs. However, if you leave the queen alive she can create more insects and make the task harder that way. A real dilemma.

If a bomb misses its target it will bounce until hitting the district perimeter or a building. This will not be popular, and you should try to minimize damage to the city.

If you run low on bombs, need a supabomb or receive a lot of damage to the Arachnus, you can use the radio to whistle up some help. Bombs will be dropped in by parachute, and repairs will be quickly carried out, but all this costs money and there's a lot of city to de-infest. To find bombs once they've been airlifted in, you use a scanner – which can also be used to locate the queen and other insects.

The gameplay is a bit slow but it presents a mammoth challenge. The graphics are superb and there's a soundtrack in the *Aliens* mould that really sets up a great atmosphere. Don't expect fast action, but those with a little patience will be getting excellent value for their money. **BW**

FIRST-DAY TARGET SCORE
Clear one city

HYDROFOOL

FTL, £8.95 cass, £13.95 disk, joystick or keys

Remember poor old Sweevo who had the job of clearing up planets? He coped with one weird world, and now they've thrown him in at the deep end of another – Deathbowl. This planet is flooded with water and the scuba-diving mechanical moron has to pull four plugs in order to drain it.

As in *Sweevo's World* the game is composed of 200 3D locations. This time they're even more detailed and packed with amazing aquatic antics. Sweevo has changed his appearance and donned a wetsuit, so as to look positively human (poor fella). However he's still a robot and what with all that water around, his main problem is rust.

To pull out the plugs he first has to collect the correct four objects and drop them at the plug. It's reminiscent of taking objects to the cauldron in *Knight Lore* and just as difficult.

The watery caverns are connected by portholes in the rock and in each one a new surprise awaits. There's plenty of scenery with rocks, seaweed, anemones and oysters everywhere, but there's also plenty of wildlife. Bumping into static objects can stun you, and being savaged by one of the undersea monsters does nasty things to your "rustometer".

If you get too rusty the game ends. You can fight off the effects by picking up oil cans but there are a limited number of these to do the job. The adversaries come in several well-animated forms including large wolffish, jellyfish, seahorses, shoals of piranha and even baby whales.

As well as the oil cans you can pick up other objects, some of which are used on the plugs and others as weapons. The weapons give you three shots but you can kill a specific creature only with the right weapon. For instance bent spoons (?!) work on jellyfish and horseshoes on seahorses.

SECOND OPINION

There is some horribly good software this month. The follow-up to Sweevo's World is no exception. Marvellous 3D perspective, "hydromation" and a plethora of stranger-than-life characters make this another Gargoyle goodie. **RpM**

GREEN SCREEN VIEW

Sea-green, clear-green!

Killing creatures is important, as it may cause doors to open or objects to come within your grasp. It also gets them off your tail: several of them have the nasty habit of following you between locations. If you waste weapons it could prove costly, so identify your targets early and use them efficiently.

The caverns are split into six levels and to get between them FTL has come up with another ingenious transport system. To go down you just swim over a whirlpool and it sucks you down to the next level. To go up you swim over a bubble point on the floor and soon a bubble will lift you gracefully upwards.

Bubbles don't always go all the way up but may burst halfway up the screen. This is handy for swimming over barriers or reaching objects on ledges because you have no other way of gaining height.

Anyone who remembers the fingers from *Sweevo's* will be pleased to hear that they're back in the guise of long-necked sea monsters that will suddenly stick their heads up from the ground, catching the hapless diver on top of them.

The graphics are superb, as you'd expect from FTL/Gargoyle. The gameplay has plenty of original touches, although I did find myself experiencing déjà-vu from time to time about other 3D games. It's quite a challenge to complete but great fun right from the start. The music is a marked improvement too: Rob Hubbard has created an great piece for it. A lot more frantic running around than most 3D games, but this just adds to the fun. **BW**

FIRST-DAY TARGET SCORE
Get one object to a plug



The Verdict

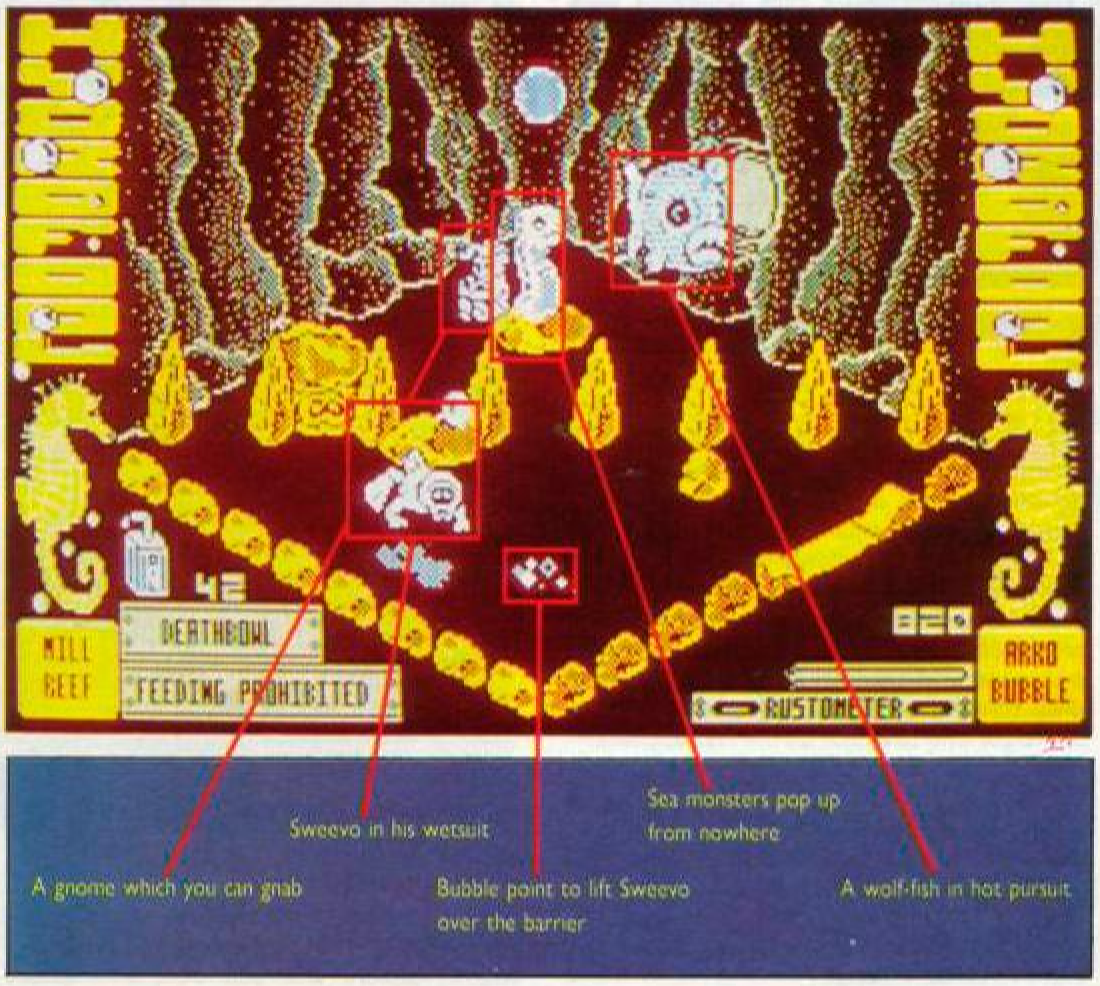
GRAPHICS 93%
- ☐ Detailed city graphics.
- ☐ Good animation on Arachnus and insects.

SONICS 89%
- ☐ Atmospheric soundtrack.

GRAB FACTOR 87%
- ☐ Excellent on-screen presentation.
- ☐ Fun exploring and killing first insects.

STAYING POWER 78%
- ☐ 25 districts and a limited budget mean it's tough.
- ■ Gameplay gets a bit slow and repetitive.

AA RATING 85%
- ☐ Stunning originality for a budget game.



The Verdict

GRAPHICS 88%
- ☐ Detailed background graphics and characters.
- ☐ Great animation on Sweevo and other characters.

SONICS 83%
- ☐ Excellent Rob Hubbard music throughout game.

GRAB FACTOR 86%
- ☐ Nice underwater setting and control.
- ☐ Frantic gameplay gets you involved.

STAYING POWER 85%
- ☐ Lots of exploring and tasks to complete.
- ■ Some unoriginal elements detract.

AA RATING 85%
- ☐ Enough new stuff to make this an excellent game.

PASSENGERS ON THE WIND

Infogrames, £12.95 cass, £14.95 disk, joystick or keys

Infogrames has already released some very original games in *The Vera Cruz Affair* and *Sydney Affair* but both suffered from playability problems. Now comes a game of stunning originality that along with *Prohibition* looks set to put Infogrames in the forefront of games houses.

Passengers is best described as a joystick-controlled, menu-driven adventure. It's based on a French comic book by François Bourgeon, the game continuing where the first volume of the book leaves off. The game is split into ten separate episodes, and each one has to be completed before the next one loads.

The story is set just before the French revolution and centres on two young lovers, Hoël and Isa, and their struggle to regain his lost honour and her usurped title as a countess. All this takes place against the background of the war between France and England and encompasses a wide spread of characters and locations.

At the start of each episode a beautiful scene appears on the screen with two main windows below it. You start by examining the picture for characters. You control a cursor and may have to click on individual characters or just a general area in order to access the character. Once you've done this you won't need to use the cursor on the main picture until the next episode. One important thing to remember is to click several times on the picture to make sure you've found all the characters and objects.

A character will appear in the bottom left corner of the screen, where there was previously a map showing your location. You can cycle through the various characters present at a scene to determine which one you want to do something. To the right of this window is a larger one in which all the text appears.

If you click the cursor on a character it will have one of three effects. They may do nothing, they may perform an action, or they may give you a list of actions to choose from. Each of these will be indicated in the text window. You need persistence, because in some situations a character may take several clicks to do something.

Actions are usually accompanied by a graphic window appearing in the main picture. These are as well drawn and detailed as the original picture and add both atmosphere

The Verdict

GRAPHICS 94%
- □ Superbly detailed and colourful pictures.
- □ Excellent use of windows and picture sequences.

SONICS 92%
- □ Long and varied tunes throughout game.
- □ A different tune for every episode.

GRAB FACTOR 93%
- □ Atmospheric and intriguing presentation.
- ■ Can be confusing at times.

STAYING POWER 88%
- □ Ten involved episodes to get through.
- ■ Once completed, like an adventure, you won't play it again.

AA RATING 91%
- □ Bursting with originality and innovation.



The third episode takes place at a dock where Hoël tries to help a girl being beaten up

Window where the characters appear

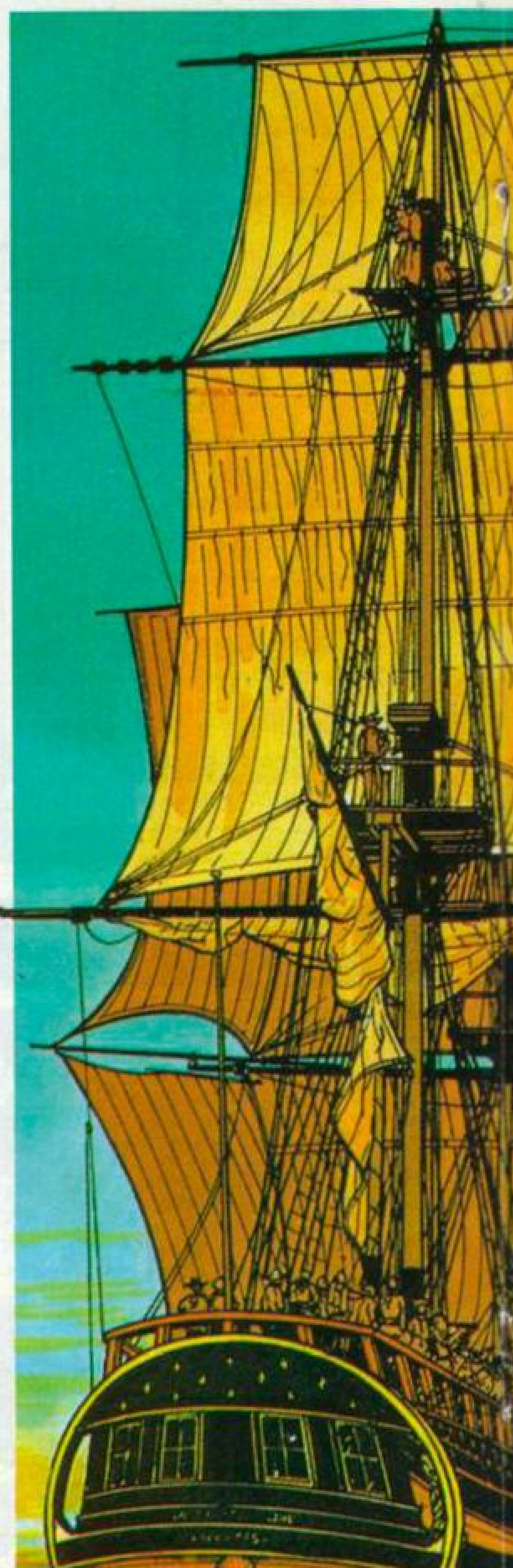
SECOND OPINION

Superb packaging, graphics and music make this a very special game. The translation from French has not suffered as badly as Vera Cruz, but could still do with a little spicing up. If this is the standard of games to come on the CPC, you have a lot of surprises in store. I was most impressed with Passengers and hope there is a sequel around the coast.

RpM

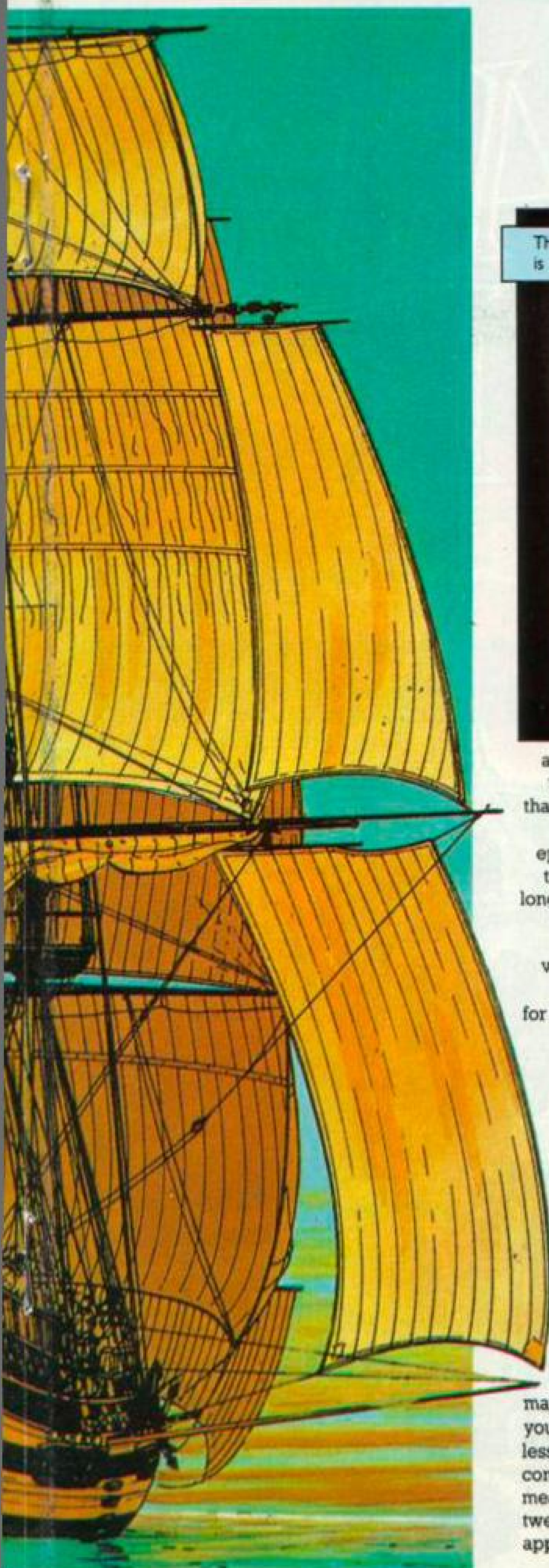
GREEN SCREEN VIEW

Everything is visible



 A wind in the sails

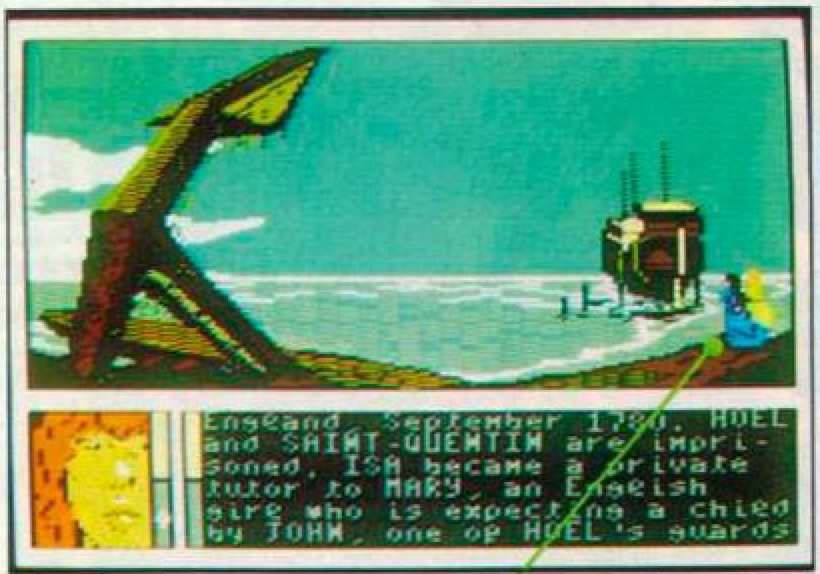
MASTER GAME





The second episode involves a sequence of pictures: a gun is kicked out of Mary's hand

Text window where conversations and options appear



The two women on the shore watch the prison ship

clarity to the game. Some windows even come in a sequence providing interesting animation. You don't have to refer to the pictures with the cursor any more, but they're great to look at and often explain the storyline better than the text.

During each episode a different tune plays. They're long, varied and add to the atmosphere. It shows the value of good music in this sort of game for setting the scene.

The essence of the gameplay is to access the characters in the correct order and choose the right action for them. This inevitably means a good deal of trial and error, but common sense should help you through most sections.

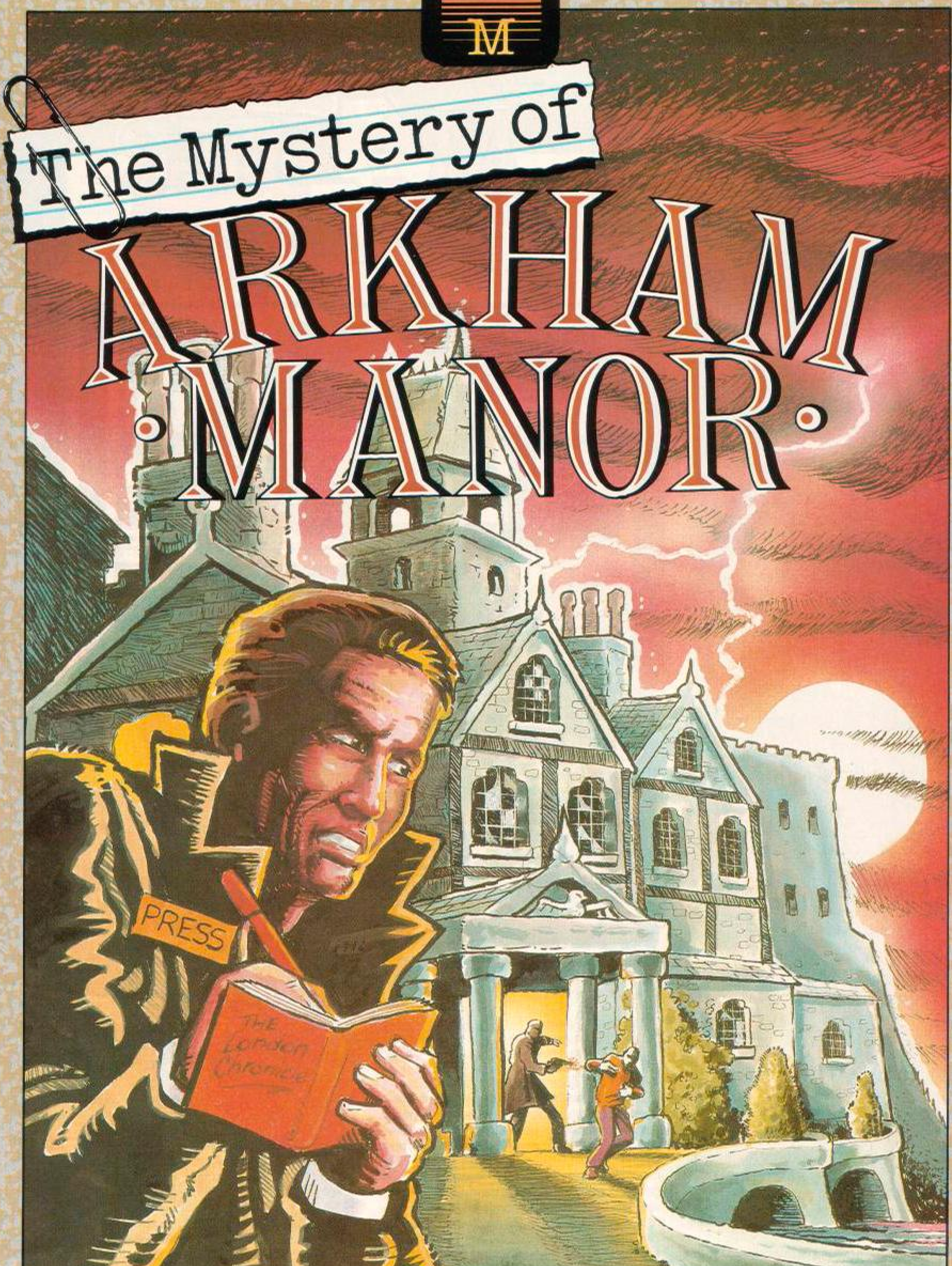
This is also where you encounter the one major drawback: the random order in which you can access characters, combined with the less than perfect translation, can leave you confused about what is going on and why. This means you can complete an exchange between characters and only at the end (if then) appreciate what has happened.

In the first episode you have to rescue Hoël and Saint-Quentin, who are prisoners on an English ship. Isa and an English girl Mary can do this with the help of Mary's boyfriend John, a guard on the ship. If you fail to complete an episode you can restart it without reloading, but the main picture won't clear – images will just keep being overlaid on it.

There's no doubting the stunning originality, tremendous graphics and delightful music, all superbly packaged and presented. However, this new game format still needs work: more interaction and better translation would bring it closer to its potential. Originality and innovation like this should be rewarded, so although this won't appeal to all players, it's the shape of the future for computer games.

BW

FIRST-DAY TARGET SCORE
Complete first episode



AVAILABLE FOR: SPECTRUM £7.95, AMSTRAD £8.95, CBM £8.95

NEMESIS

Konami, £8.95 cass, £14.95 disk, joystick or keys

Konami, to my mind, seems to have come out with quite a few good games lately. *Nemesis* combines space adventure with rapid shooting in the inevitable conquest of the aliens. Thought for the day: Where do they come from? Will it ever stop?

Your mission is to control your ship through a maze of passages, and massacre as many aliens as possible. Years of shoot-em-ups allow these cruel words – kill, murder, massacre – to pass my lips.

The first phase of attack from the aliens is a stream of ships which always follow the same pattern. If you shoot all of the ships in each stream, another alien ship will appear; you must steer into it to get your weapon counter to increment. What? At the bottom of the screen is a six-section weapon indicator. Every one of the "last in the stream" ships that you steer into will move the weapon indicator up by one. Choose a weapon and this weapon will stay with you until you get shot (or, in the case of the shield, until it expires). You can have more than one weapon at a time, but everything starts again when you die. This is a real pain: however far you got on the first stage, you will always go back to the last two streams of the first-phase aliens.

The second phase incorporates more aliens, with a varied approach. These are much harder to hit, and I (well, actually all credit should go to a friend of mine, H.E.) found greater success when attempting this phase with a shield and a double.

I didn't like this game at first, but after a while it started to grow on me. The only feature which still gets my goat is having to go back to the start. This tends to dampen my enthusiasm, for it is invariably a lot more luck than judgement which gets me anywhere. Still, the graphics are not too bad, and the sound is good. Movement is easy and smooth, and there is the possibility of getting quite skilled at it in a very short time. **CB**

SECOND OPINION

I agree with Chris about the restart feature. Things like that are guaranteed to get up your nose and irritate the lining of your brain. Otherwise it's a very competent shoot-em-up with lots of variety in the weapons and aliens. A good way to spend a casual hour zapping. **BW**

GREEN SCREEN VIEW

No problems zapping in green.

FIRST-DAY TARGET SCORE

25,000

The Verdict

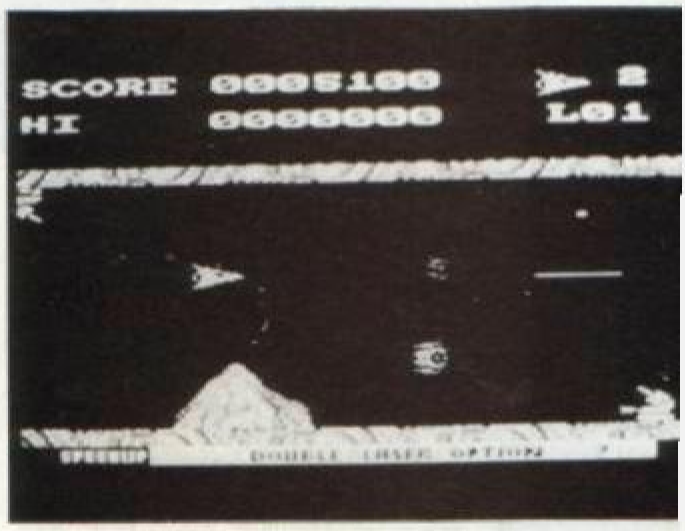
GRAPHICS 74%
☐ Varied scrolling scenery.
☐ Pretty-coloured characters.

SONICS 68%
☐ Convincing effects.

GRAB FACTOR 77%
☐ Lots of aliens to shoot.
■ Dying always sends you back to the start.

STAYING POWER 67%
☐ A lot of tough waves to get through.
■ Not much else to do but shoot.

AA RATING 75%
☐ Varying weapon range to choose from.



AUF WIEDERSEHEN, MONTY

Gremlin, £9.95 cass, £14.95 disk, joystick or keys

Some might be pleased to hear the title, others might not. That's why I was given this game to review, because I have not played any of the previous Monty chapters and cannot be biased by them.

Platforms, ladders, jump-pads, nasties, objects, missions, air-to-air combat, are all here in the last of the Monty line.

Monty must run for his life across Europe by whatever means he can. He must find enough money to buy the lost island of Montos. He can fly from country to country by finding airplane tickets.

There are different quests he can complete on his way to his extradition-free island. For instance, the inlay suggests gaining a few francs by fencing the Mona Lisa or by tempting German wine connoisseurs with a bottle of France's finest Chateau Blanc.

The scene is mainly rocky caverns with platforms and ladders. Certain parts of the platforms are jump-pads. On these, Monty will start to jump as if on a trampoline and will not stop until he reaches another platform, or until he has jumped as high as he can. Money is in the form of Eurocheques, green or golden. Air tickets are denoted by a plane on them. Dotted around the complex twist of caves, are bottles, perchance left by British holidaymakers in search of Watney's Red Barrel. These bottles cause some weird effects, mostly making our mate Monty a bit drunk. He moves in weird and wonderful ways.

Indescribable thingies shaped like boxes or pies or London Underground signs appear on some screens. They let you fly off if you press the "fly" button when on them. The cavern backdrop is replaced by clearish blue skies, with the odd cloud. Other planes greet you, one at a time, and you can destroy them by nibbling their tails. The most annoying aspect of flight is lack of warning when you land. Flying from the first location to the Eiffel Tower will lose you life as soon as you land. The only way I found to overcome this is to possess more than one airplane ticket before leaving the first location and to keep a finger on the Fly button throughout the flight. This causes immediate departure on another flight as soon as you land at the Eiffel Tower. This does seem to defeat the object, but – another query of mine – what is the point of being able to fly, when you can travel to the Eiffel Tower easily enough through the caverns?

Eating certain objects causes things to happen. Eat a record, and Monty does a short little rap!

The music is nice, with two Monties at the top doing a mean dance.

I started off really liking this game. I wore the complimentary badge with pride. I played it every night for at least two hours! Suddenly, uggh! I realised I had become addicted to a boring game. Sounds complicated, don't it? Well, I rang Monty Anonymous and they reminded me it is the last one. That made me feel much better. **CB**

FIRST-DAY TARGET SCORE

Visit the Eiffel Tower.

The Verdict

GRAPHICS 58%
☐ Many different characters.
■ Scenery lacks intricacy.

SONICS 55%
☐ Nice title music.

GRAB FACTOR 73%
☐ Typical platform difficulties.
☐ Good quest to complete.

STAYING POWER 67%
■ Not as extensive a playing area as first thought.
■ Flight is an unnecessary perk.

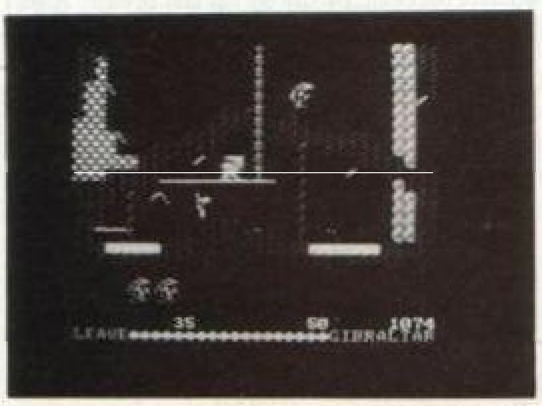
AA RATING 71%
☐ The last of a popular line.

SECOND OPINION

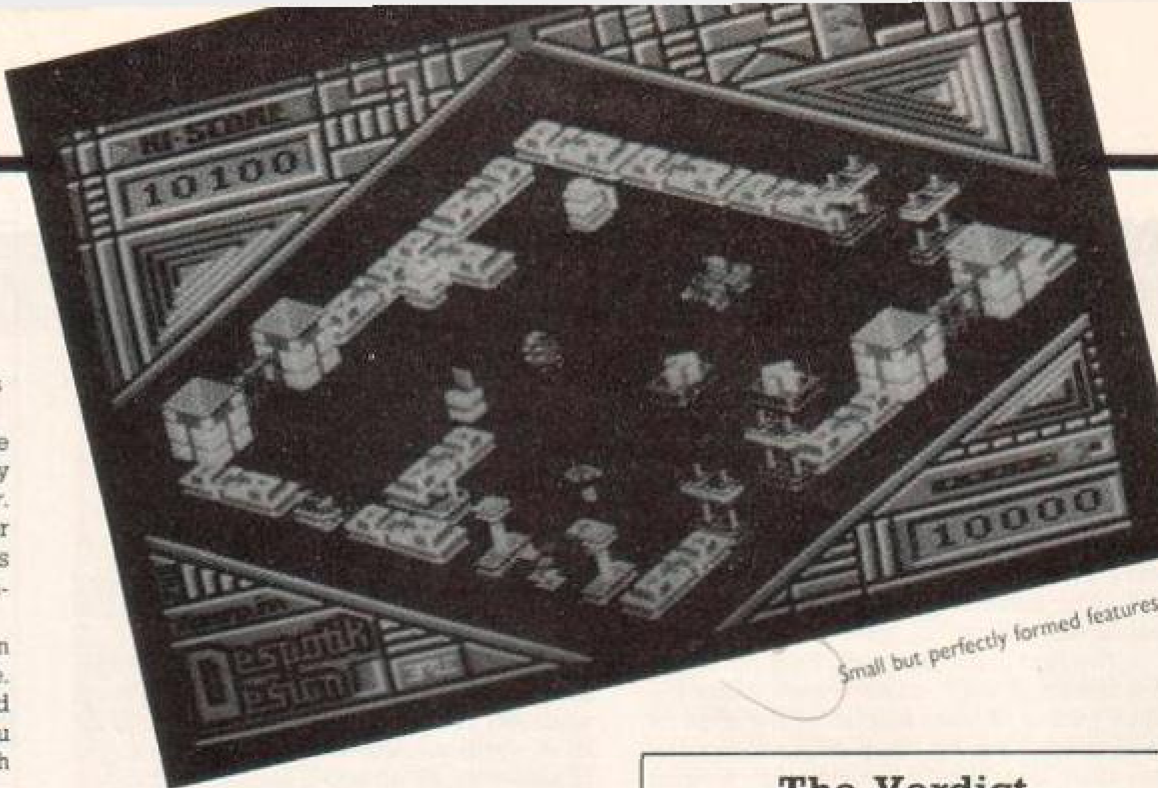
I got tired of platform games a long time ago, but I must confess that I've a soft spot for Monty. It won't win any prizes for originality even with new features like flying, but if you liked Monty on the Run you should like this. I think Monty will be missed but the platform game won't be. RIP, both of them. **BW**

GREEN SCREEN VIEW

Everything playable.







Small but perfectly formed features

DESPOTIK DESIGN

Ere Informatique, £9.95 cass, £14.95 disk, joystick or keys

The two authors of the latest Ere game are Philippe Taupin and Michel Rho. You may remember the latter for producing *Get Dexter*. This new release isn't similar except for featuring lots of robots. It's best described as an arcade puzzle. And it once again demonstrates the value of originality.

You are in a computer complex, and in each location you have to re-route a module. The module appears from a yellow door and is directed by arrows through a red door. You have to change its path so that it exits through a green one.

SECOND OPINION

Remember Get Dexter? *Its author is half to blame for Ere's latest,* Despotik Design, *and has used the same colourful three-dimensional perspective. He also treats you to an abundance of cute characters. An enjoyable game, but not quite up to the standards of* Dexter. **RpM**

GREEN SCREEN VIEW

No problems.

You view the rooms from the same 3D aspect as in *Get Dexter* but with considerably different graphics. They're much smaller, more detailed and full of colour. I found that they were too small and intricate and, for once, something a little chunkier would have been appreciated.

Besides the three coloured doors there are one or more gates in every room that connect to other rooms. At first, rooms will seem fairly inactive. But drop a magnetic key to move things around, and all hell breaks loose: Robots will leap into action and pursue you around the room. Mushrooms can kill on contact or steal your key. Other robots drain energy or pinch your heatball.

The heatball is used to destroy robots and can be thrown out to bounce around the room. It has to hit something or be collected before it can be thrown again. Clear the room of robots and then you can start redirecting the modules.

Arrows can be moved around or have their direction reversed. In some cases they will disappear if you bang into them.

I was very disappointed at first, but the game really grows on you. Solving the problem in each room isn't too difficult. But when combined with trying to stay alive against heavy robot activity, it gets a lot tougher. An original title that's well worth a look. **BW**

The Verdict

GRAPHICS 66%
- ☐ Intricate and colourful objects and screens.
- ■ Too small to be appreciated.

SONICS 62%
- ☐ Good title tune.
- ■ Few effects.

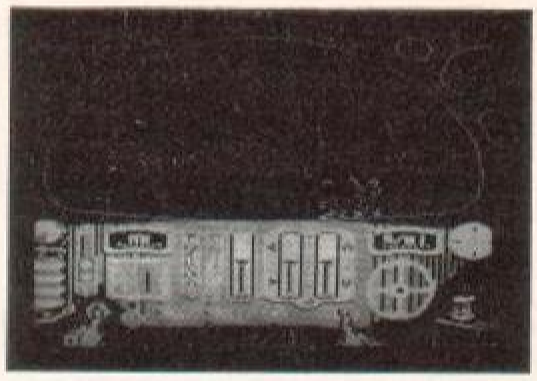
GRAB FACTOR 69%
- ☐ Instructions leave just enough to work out yourself.
- ■ Slow and confusing to start with.

STAYING POWER 82%
- ☐ Lots of different rooms to solve.
- ☐ Plenty of action as well as simple, addictive puzzles.

AA RATING 77%
- ☐ A worthy, original game.

TERROR OF THE DEEP

Mirrorsoft, £9.95 cass, £14.95 disk, joystick or keys



This game follows in the tracks of many proven games, though with a small difference. The closest semblant is *Elite*. The difference, apart from the fact that *Elite* was a brilliant game, is that *Terror of the Deep* is set underwater.

The story is that some strange meteorites landed in Loch Ness. Strange creatures have been seen rising from the lake at night. An eccentric professor who lives at the side of the lake has invented an intricate bell-like diving machine to explore the lake. Unfortunately the poor old guy is on his last dentures and has selected you to complete his mission - to rid the loch of the alien invaders.

Before the prof has shown you how to control his craft, he draws his last breath. Alas, poor Cedric, you knew him so little! Anyway, you get lowered into the loch and peruse the map for where to start looking. You have a vast number of controls at your fingertips: gauges, switches and levers to get used to. The bottom of the screen is the instrument panel. There are two hands on it. The left remains stationary over the Fire button; you control the right.

You have three kinds of ammo with which to skewer the aliens: spears, an electric field and bombs. You can drop bombs and then detonate them remotely by pushing a lever. If you run out of weapons or run low on fuel, you can resurface by filling your tanks with air. This is done by manual pumping.

SECOND OPINION

The controls are certainly over-complicated. If they had tried to make it a strategy game it would have been more interesting, but a shoot-em-up with too many controls is not much fun. It's very slickly presented and programmed but I think the gameplay got lost along the way. It is possible to get into the game but on the whole it's disappointing. **BW**

GREEN SCREEN VIEW

What there is to see is playable in green.

I detest this game. I think that a game needs something, however small, to grab you during your first go. It took me five to find an alien! The graphics are mediocre, and the sound-effects are nil. The gameplay is slow and over-complicated. **CB**

FIRST-DAY TARGET SCORE

Find an alien.

The Verdict

GRAPHICS 55%
- ☐ Nice control panel.
- ■ Characters are only clear when close up.

SONICS 13%
- ■ Might as well not be there.

GRAB FACTOR 36%
- ☐ Well presented and intriguing.
- ■ Too many controls.

STAYING POWER 34%
- ☐ Large expanse to search.
- ■ Far too difficult.

AA RATING 34%
- ■ Good idea, shame about the implementation.

Quelle bonne idée

SABOTEUR II

Durell, £7.95 cass, £11.95 disk, joystick or keys

Well, looky here. Another sequel. *Saboteur II, the Avenging Angel*, strikes a new blow for the feminist movement.

You take the role of the Ninja's beautiful sister. Your task is to avenge his death by getting into the massive complex that holds the dictator's missile. There you must find enough bits of punched tape, hidden in supply boxes, to redirect the missile.

You start off gliding over the complex in a one-woman hang-glider. You are too high above the complex to know exactly where you will land, but low enough not to die when you jump from it. Huge android guards and lethal pumas patrol the complex. As in *Sab I*, you can kill these with unarmed combat – kicking and punching – or with weapons found in the supply boxes.

The complex is like a vast hill, with lots of passages mazing inside it. Quite mappable. The lower passages pose greater obstacles, such as vampire bats and flooded passages which you can swim.

After six or seven games you should be able to find your way around the complex fairly well, though you still have much to explore. It is not difficult to find the missile, but you cannot get inside the silo which contains it.

I like this game very much. At first the android guards killed me too quickly, but I soon got quite skilled at killing them. I found the motorbike once, but was unfortunately dead at the time due to my sudden stop after falling down a lift shaft. A lot to play, and many hours of enjoyment. **CB**

SECOND OPINION

Can't say the graphics have improved much from the original, which is unfortunate news for green-screen owners. The gameplay is better than its predecessor, but I didn't find it inspiring. It's an excellent game for those who like a lot of running around and mapping. Good to see a female hero for a change, getting her own back with a few well-placed kicks. **BW**

GREEN SCREEN VIEW

Some screens with blue and black are extremely hard to see.

FIRST-DAY TARGET SCORE
12,000

The Verdict

GRAPHICS 68%
- ☐ Clear depiction of guards and pumas.
- ■ Lacks colour.

SONICS 72%
- ☐ Nice tune and good effects.

GRAB FACTOR 59%
- ■ Slow movement takes getting used to.
- ■ Dying occurs with alarming speed.

STAYING POWER 77%
- ☐ A massive area to search.
- ☐ A semi-difficult initial mission.

AA RATING 74%
- ☐ A good sequel.
- ☐ Durell is still doing its special offers with the game.



RED SCORPION

Quicksilva, £8.95 cass, joystick or keys

A vector-graphics attempt at a mix between *Elite* and *Tau Ceti* from Quicksilva. It's set on a planet where you've got to destroy the invading forces but avoid hitting the local buildings and ships.

Your can move the ship forward or backward or rotate it left or right. You have a choice of three weapons. Normally you have a laser, but with keys you can choose, arm, aim, and use a missile or a cruise missile. I think there is a bug in the aiming of the missiles, because wherever you place the cross, the missile still goes straight ahead.

Another option shows the power level of any incoming missiles. This is very slow, and to my mind totally unnecessary. The most useful option determines the identity of any object in your sights. Unfortunately, this, like all the options, will work only when you are still, and even then it is quite finicky. Until you know the shape of the different objects on this planet by heart, you will need this option. Firing at anything that moves is, unfortunately, not something you can do in this game. If you hit something other than an enemy, like a farm for instance, your game will end due to "Destruction of Restricted Property." This happens far too much for my liking.

Different sight modes are also available. These vary from normal to ultraviolet light. In other words, you can see certain objects only with a certain sight mode. This is yet another annoyance: after playing this game for hours, I still have not been able to see a missile coming towards me.

Well, I hated this game. The vector-graphics were drawn well and very quickly, but I think this causes options to be slow and cumbersome. The sound was not bad but was really just the usual *fizz-pop* you find in any shooting game. In conclusion, not a game for my collection! **CB**

SECOND OPINION

Like Terror of the Deep *this is a shoot-em-up that has lost its way. You can't complicate a shoot-em-up with too many controls and options. It becomes too confusing. The action should be fast and instinctive rather than involve constantly fumbling for the right option. They should have either plumped for straight action or split the strategy off into a separate section like the trading in* Elite. *A shame, this, because it had potential.* **BW**

GREEN SCREEN VIEW

Vectors show up well. No problems.

FIRST-DAY TARGET SCORE
10,000

The Verdict

GRAPHICS 65%
- ☐ Vectors are quite detailed (as vectors go).
- ☐ Quick drawing adds to the game's speedy action.

SONICS 67%
- ☐ Realistic *(How do you know? – Ed)*

GRAB FACTOR 51%
- ☐ Many different objects to study.
- ■ Annoying "Destruction of Restricted Property."

STAYING POWER 54%
- ☐ Many different options to use.
- ■ Slow response-time makes it hard to persevere.

AA RATING 53%
- ■ Nice try, but no cigar.

This is a tail to sting the scorpion.

THRUST 2

Firebird, £1.99 cass, keys only

Another budget game to relieve the needs of us poor thankful action addicts. Well, perhaps "action" is the wrong word to use for this game. Anyway, it's cheap.

The sequel to *Thrust* is a continuation in the seemingly endless struggle against the Galactic Empire. You play the part of a member of the resistance, which has taken over an artificially created planet. Your job is to guide your ship around this small planet in search of the orbs which will, when placed in the correct position on the surface, build the atmospheric processor. It will purify the cloud of red dust surrounding the planet and allow life to exist there.

But you have a limited time after removing orbs from their holders to place them on the surface – otherwise they explode. Your task is made harder by imperial android guards, still left on the planet from the invasion. However, to combat them, there are chemical agents hidden inside boxes dotted around the complex maze of passages that make up the inside of the planet. Once collected, they last for a short time, and only one can be used at a time.

I don't like this game at all, but I can see how it might appeal to others. I find the overall task a bit limiting, and uninteresting. The control of the ship is good fun, especially when carrying an orb. The weight of the orb tends to drag your ship down with it, but I enjoyed mastering this mode of travel. The characters are all single-coloured, and the scenery is rather drab and lifeless. Sound is not worth mentioning. If I play a game and cannot remember the sound when I come to write the review, I feel that is apt proof that the sound was pretty mediocre anyway.

For the price, this game is worth getting, if you liked *Thrust*. **CB**

FIRST-DAY TARGET SCORE
Pick up one orb and place it on the surface.

SECOND OPINION
The graphics are an improvement on the original, but the gameplay isn't. The beauty of it was the simplicity of just flying and shooting in confined spaces. Now you have to fiddle around with chemical agents. I much prefer the original but, to be fair, they've made a gallant attempt to improve upon it. If you liked the original you may well like this sequel. **BW**

GREEN SCREEN VIEW
All pods, aliens and features visible.

The Verdict

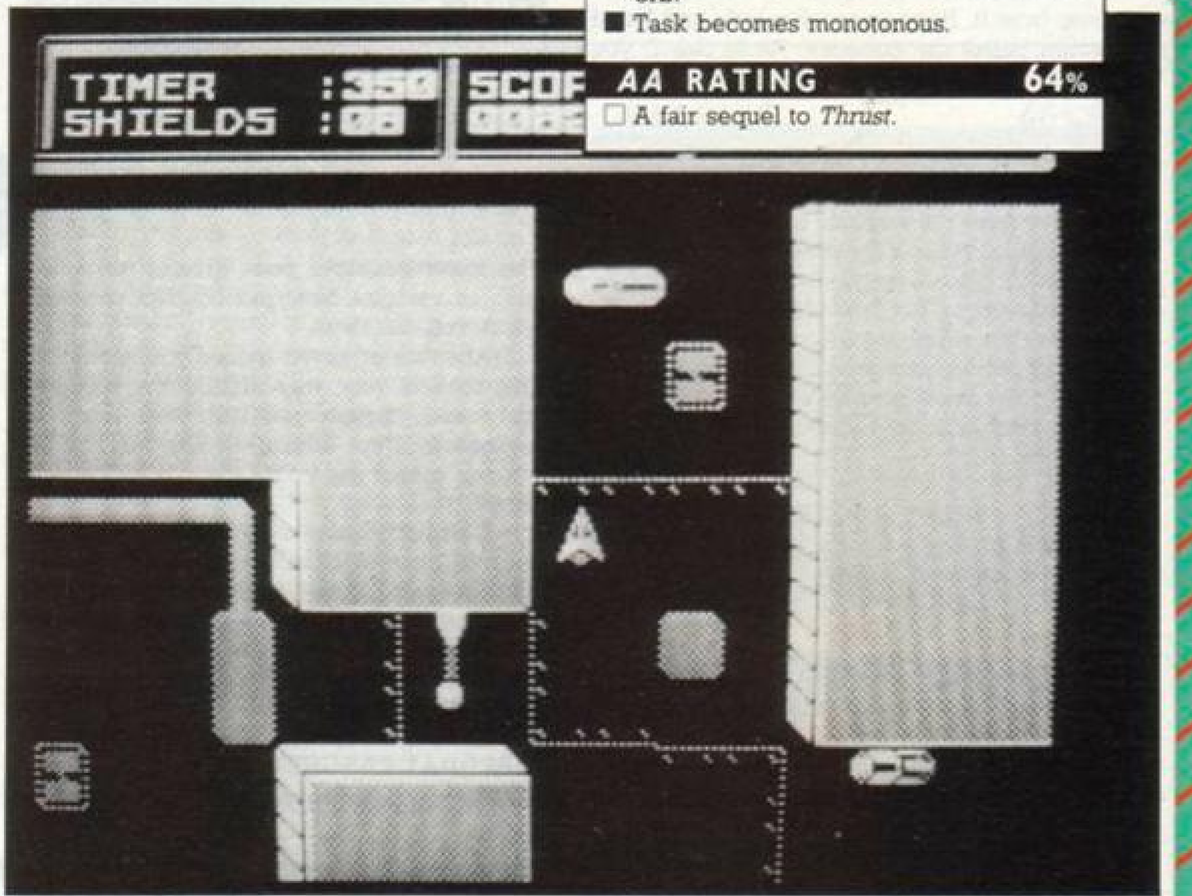
GRAPHICS 67%
□ Clearly defined.
■ Everything is single-colour, and jerky at high speeds.

SONICS 46%
■ Dull.

GRAB FACTOR 63%
□ Enjoyable controls to master.
■ A sequel with little variation from the first.

STAYING POWER 68%
□ Difficult to control ship when carrying an orb.
■ Task becomes monotonous.

***AA* RATING 64%**
□ A fair sequel to *Thrust*.



PARABOLA

Firebird, £1.99 cass, joystick or keys

Yet another bouncing game, this time from Firebird. You must guide – or rather, bounce – Bruce, the spring, across a three-dimensional grid. The only other information you'll get in this paragraph is that collecting and avoiding are major features of the game.

No title screen or introductory music. Straight into the game. A grid springs (sorry) to view. You must choose one of the squares on it. This will take you to a particualar level – of which there are 36.

Each level is made up of a combination of squares. The squares make an overall pattern and are not necessarily the same height. On top of each square is a thing that gives the square a certain property: no-trouble-thing, direction changers, round ejection disks. Bruce must also avoid a variety of moving guards. They come in a host of shapes and sizes, but all have the save devastating effect: they kill.

Graphically *Parabola* is superb: good use of colour and detail. Stippling is used to give the impression of more colours than are actually present. Sound is raspy and tinny – best turned down, in fact.

When you see Bruce madly hopping up and down, guide him across the level. Avoid the moving guards and the ejection disks; otherwise, when he touches down he'll shatter – nice effect, except it happens too frequently. Of course there is an object to it all: land on rotating energy disks and proceed to the exit square. Then you move to the next level. Each level is significantly different and calls for new tactics.

Parabola is he bouncing theme seen in a new light – fun for a sum that won't break your bank. **RpM**

FIRST-DAY TARGET SCORE
Complete three levels

SECOND OPINION
A novel little bouncing game that's well worth a couple of quid. The screens tend to get a bit repetitive, but some are quite tough. You can spend a pleasant few hours with this one and not feel you've wasted your money. **BW**

GREEN SCREEN VIEW
Good choice of colours to make things visible.

The Verdict

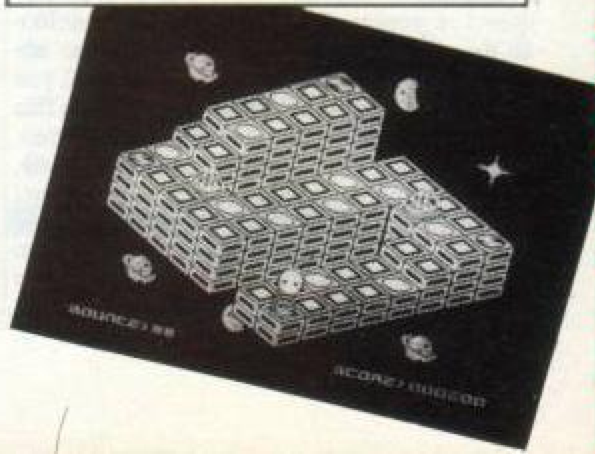
GRAPHICS 67%
□ Good-looking and detailed
□ Nice spring animation.

SONICS 34%
■ Squeaks and boings.

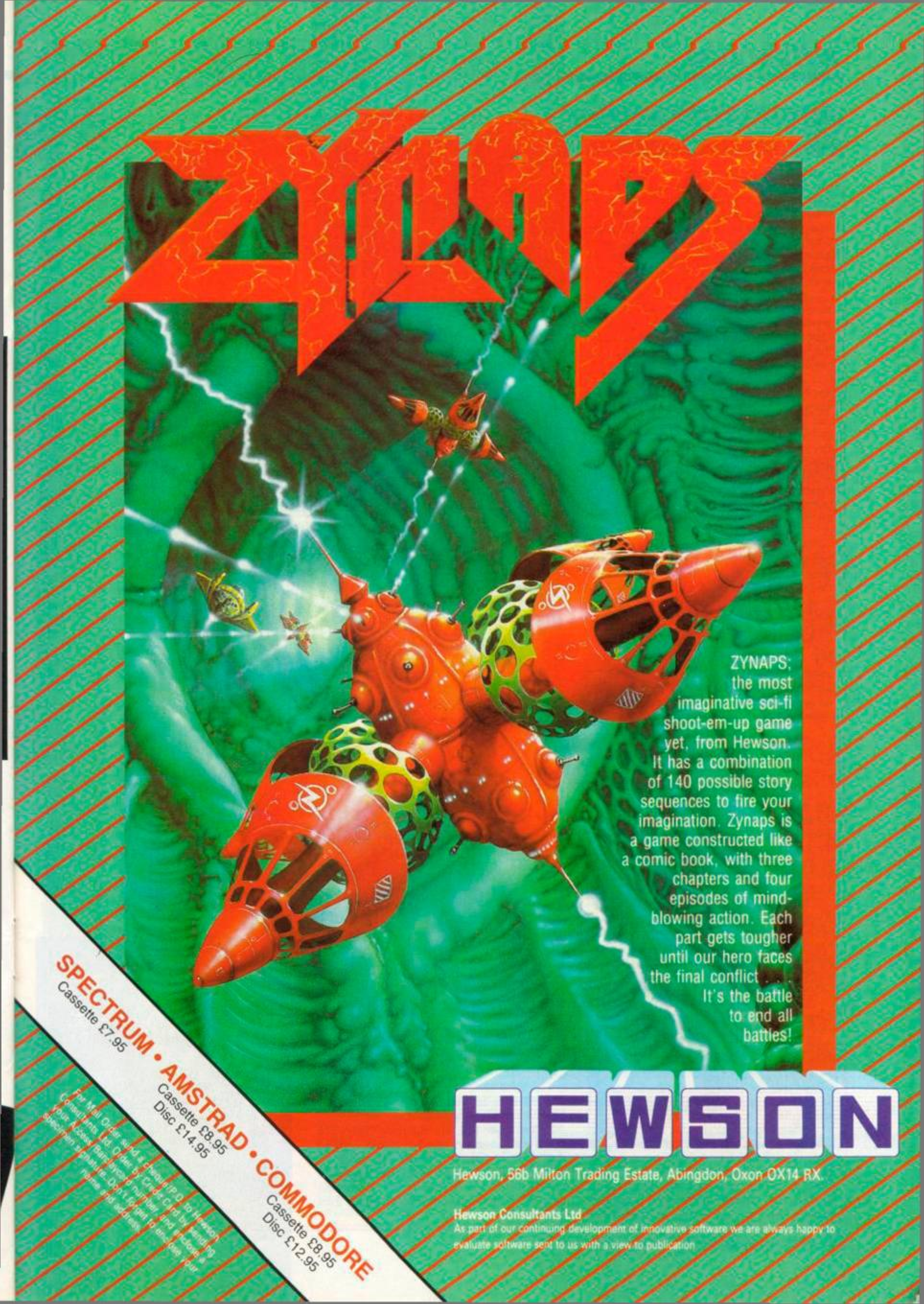
GRAB FACTOR 59%
■ Rather a simple and tired concept.

STAYING POWER 67%
□ Addictive, will keep you at it.
□ Tough levels.

***AA* RATING 63%**
□ A good bounce for £2.



 turn into a rubber ball and bounce, bounce, bounce


ZYNAPS
ZYNAPS; the most imaginative sci-fi shoot-em-up game yet, from Hewson. It has a combination of 140 possible story sequences to fire your imagination. Zynaps is a game constructed like a comic book, with three chapters and four episodes of mind-blowing action. Each part gets tougher until our hero faces the final conflict . . . It's the battle to end all battles!
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As part of our continuing development of innovative software we are always happy to evaluate software sent to us with a view to publication

ARKANOID

Imagine, £8.95 cass, £14.95 disk, joystick or keys

I should start by declaring that I always have and always will love *Breakout*. I know it's a very old and unoriginal game but it is the classic arcade game – totally abstract in concept and demanding pure reaction gameplay. It's therapy for a jaded mind, the sort of game you sit down to play and six hours later look at the clock and wonder where the time went – total addiction.

Arkanoid is better than *Krakout* because its graphics and presentation are slicker, its screens better designed and more varied. However, they both retain the essential addictive elements of *Breakout* that will keep you playing constantly.

For those too new to computing to remember *Breakout* this is the basis of the game: You control a bat at the bottom of the screen which can move left and right. Above it in the field of play are lots and lots of bricks. A ball bounces around the screen, and with it you have to destroy all the bricks. You use the bat to keep the ball in play – you must stop it escaping through the one open side of the playing area. You have only a limited number of balls.

Naturally there are lots of enhancements to the original game but the basic concept and gameplay are the same. There are 32 screens, each with a different layout of bricks. On all the screens three other objects will appear from the top of the screen and although they can't harm the bat or ball they can deflect the ball and make it extremely difficult to retrieve.

The bricks come in several varieties. Most are destroyed by one hit of the ball, some require two hits, and others are completely indestructible. To progress to the next screen all except the indestructible bricks have to be eliminated. The bricks and backgrounds are colourful – a little garish on some screens, but mostly very attractive.

SECOND OPINION

Breakout *clones are not few and far between: this one tops the lot. The original theme – bounce a ball against a bat to bash the bricks – is still there, but other touches have been added. By picking up certain items your bat will elongate, turn into a laser or become very sticky. Colourful and very playable.* **RpM**

GREEN SCREEN VIEW

Bricks come in various colours and have different properties – some take two hits to destroy while others are indestructable. It is thus very difficult to distinguish between brick types in green.

The major enhancement is the introduction of capsules: they are released and fall down the screen every so often when a brick is destroyed. There are seven different types of capsule, with different effects when caught by the bat.

Three of the capsules are particularly useful, giving an extra life, an exit to the next level or turning the bat into a laser. The exit allows you to move to the next level at any time, as long as you don't die. The laser can be used for blasting away at visible bricks, but on levels where there are a lot of bricks hidden by indestructible bricks this is of little use.

The other four capsules slow down the ball, allow you to catch the ball on the bat, lengthen the bat and break the ball into three. This last one is a lot of fun because the three balls travel at different speeds: trying to keep up with all of them is very hectic indeed.

Capsules arrive regularly, but which one you get is fairly random. You can't always manage to collect them either, because the ball may have to be returned at the same time as a capsule is passing by elsewhere on the screen. Most capsules will cancel out the effect of the previous capsule, so if you've got the power you want, don't bother collecting any others.



Screen two – an awkward arrangement with double-hit bricks on the bottom

The 32 levels are tough to get through.

KRAKOUT

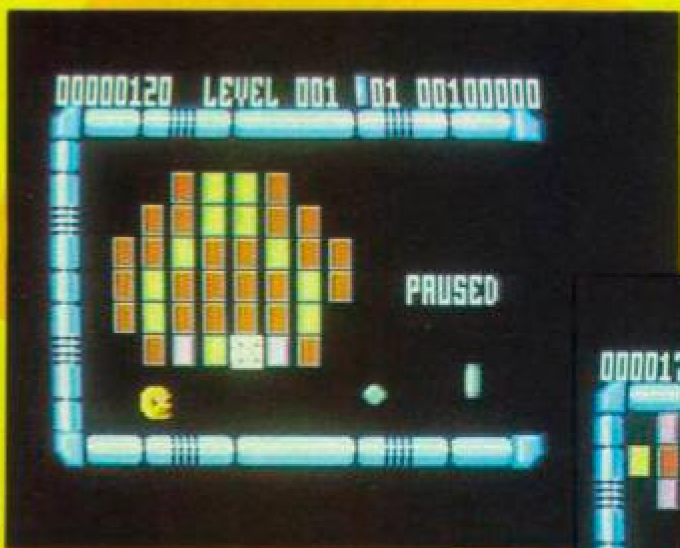
Gremlin, £9.95 cass, £14.95 disk, joystick or keys

I've got no idea why *Breakout* games have suddenly hit the market again, but you'll have gathered from the *Arkanoid* review that I for one am glad about it. *Krakout* isn't as good in my opinion but has a number of different features that you may prefer. It's also extremely addictive and well worth a Rave.

In *Arkanoid* the bat appears at the bottom of the screen, but here the bat can be positioned on either the left or right of the display. The graphics are a lot chunkier than its competitor but you may prefer that. The less impressive graphics are a trade-off for having 100 screens of action.

The aim is to remove all the bricks on a screen to enable you to move on to the next one. The bricks come in several varieties, some taking one hit, others two or more, and there are some indestructible ones as well. They're arranged in different patterns on all the screens, but because of the chunky graphics they tend to be less imaginative than the ones in *Ark*.

When some bricks are hit they spin over to reveal a letter. If you hit the brick again it gives you a bonus power in the same manner as catching a capsule in *Ark*. There are nine different effects produced, the most recent one usually cancelling out any previously gained. Four are the same as *Ark* – ball sticking to the bat, slowing the ball down, extra life and expanding the bat.



The other five are different. There's a bomb which destroys adjacent blocks, a shield that appears behind the bat enclosing the playing area, a missile that will destroy a column of bricks, doubling your score, and doubling the bat so that you've got one in front of the other.

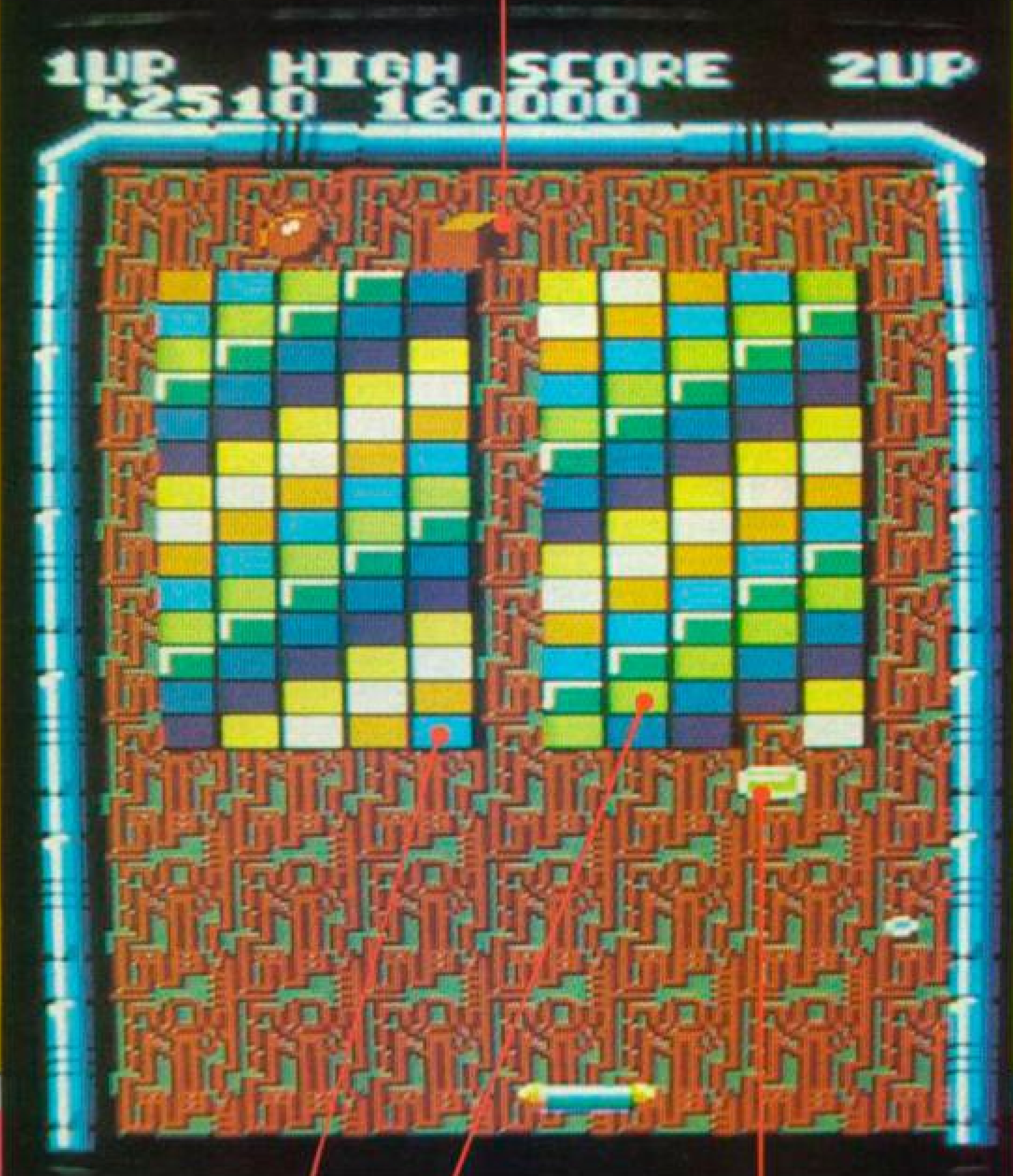


Chunky graphics but addictive gameplay

 All in all you're just...

Screen four – lots and lots more bricks

Aliens will descend the screen when the wall is removed



A capsule tumbles down towards your bat

These bricks take two hits to destroy

The Verdict

GRAPHICS 88%
- ☐ Lots of bright colours and fancy backgrounds.
- ☐ Excellent design of all screens.

SONICS 58%
- ☐ Good sound-effects.

GRAB FACTOR 92%
- ☐ Incredibly addictive reaction gameplay.
- ☐ Very easy to play; who needs instructions?

STAYING POWER 86%
- ☐ 32 screens that get extremely tough.
- ■ Annoyingly slow start-up routine.

***AA* RATING** 89%
- ☐ All the addiction of *Breakout* with new features.
- ■ Not good if you're looking for originality.

Some nasty ones pop up very early on levels three and five. Just keep your fingers crossed for an exit, glue or divide capsule on level three, and a laser on five.

I'm ashamed to say I found it very difficult to stop playing the game – it is enormously addictive. It may not be original, but I still think *Breakout* games are brilliant. **BW**

FIRST-DAY TARGET SCORE
75,000

SECOND OPINION

Another game along the Breakout *theme. You can set up much of the game to suit your taste; unfortunately you must start at level 1. The ball gets trapped on occasions, but after a while something will either eat it or knock it on its way again. I enjoyed it immensely – its colour and sound effects are pleasing.*

Gremlin is to release the Krakout *construction set, with an additional 100 screens. And, if the title is anything to go by, you will be able to create your own levels. £5 on cassette and £10 on disk.* **RpM**

GREEN SCREEN VIEW

Some of the bricks get lost in green, but on the whole is playable.

You get additional balls for every 10,000 points scored. This is handy on screens with indestructible blocks because every hit on them gives you a score, and sometimes the ball may even get stuck in a pattern until an alien knocks it out of it.

The game gives you more options than *Ark* with variable ball and bat speeds and control methods in addition to choosing whether the bat goes on the left or right of the screen.

If this had come out at any other time I wouldn't have hesitated to recommend it and I still think it's a good game. I do prefer *Arkanoid* but you won't be disappointed by this either. **BW**

The Verdict

GRAPHICS 73%
- ☐ Colourful and varied sprites.
- ■ Too large and chunky.

SONICS 65%
- ☐ Great title tune with good effects.

GRAB FACTOR 83%
- ☐ Instantaneous addiction.
- ☐ Good range of ball and bat options.

STAYING POWER 82%
- ☐ 100 screens to get through.
- ■ Not as varied or imaginative as *Arkanoid*.

***AA* RATING** 82%
- ■ I preferred *Arkanoid*
- ☐ but it's still great fun.

FIRST-DAY TARGET SCORE
50,000

CHALLENGE OF THE GOBOTS

Reaktor/Ariolasoft, £8.99 cass, £14.99 disk, joystick or keys



Gobots are a range of toys that mutate from robots into cars, planes and other vehicles. They star in their own TV cartoon and now they pop up on the even smaller screen. The game's been designed and programmed by Ross Goodley and Tony Crowther – the former programmed *Meltdown* and the latter is renowned for his Commodore 64 shoot-em-ups.

The game is well presented with a story "book" which you can load up and some copies – a limited edition – also contain an audio tape bearing the story of the Gobots and some fancy music. The game itself is a scrolling shoot-em-up on a one-sided planet. This curious effect means that the planet surface appears at the top and bottom of the screen, and if you keep flying in one direction you will encounter what was at the bottom on the top and the top on the bottom – got that?

Dotted along the surface are egg-shaped bases with a hole in the top, which you have to destroy. The craft you fly is a Gobot called Leader One who can fly and land on either the top or bottom of the screen. You have to pick up scooters (another type of Gobot), which also appear on the planet, and throw them at the bases to destroy them.

Naturally the enemy Gobots don't take kindly to this and will throw various defences against you. Cars, helicopters and green flying "clams" will steal scooters. Other Gobots will get in your way and on later levels start shooting at you.

You've got a laser to shoot objects in the air. On the ground you can drill for rocks and hurl them at ground targets. Once all the bases are destroyed you move onto the next harder level.

A nice feature of the game is an options menu allowing you to alter the game. You can make Leader One more or less responsive to horizontal and vertical thrust; you can make land obstacles fatal and turn gravity on or off. Using these you can set the responsiveness and difficulty of the game to suit you quite well.

The graphics are excellent – smooth scrolling, big explosions and lots of colourful features. The gameplay is fast and quickly gets tough. There are various techniques to learn before you get skilled at the game, particularly how to pick up and use scooters. The computerized book and audio tape add to the atmosphere, which is unusual in a shoot-em-up.

SECOND OPINION

It grows on you. The more you play this game the more addicted you'll become. The scrolling is fast and smooth, sound-effects and title tune pleasing – and the game playable. It is a spruced-up shoot-em-up, but has a pick-em-up element as well. Recommended. **RpM**

GREEN SCREEN VIEW

No problem in this department.

AA RAVE



Gobots, go botty!

If you follow the cartoon you'll like it. If you're just looking for a tough shoot-em-up, you'll find it a good challenge as well. **BW**

FIRST-DAY TARGET SCORE
10,000

The Verdict

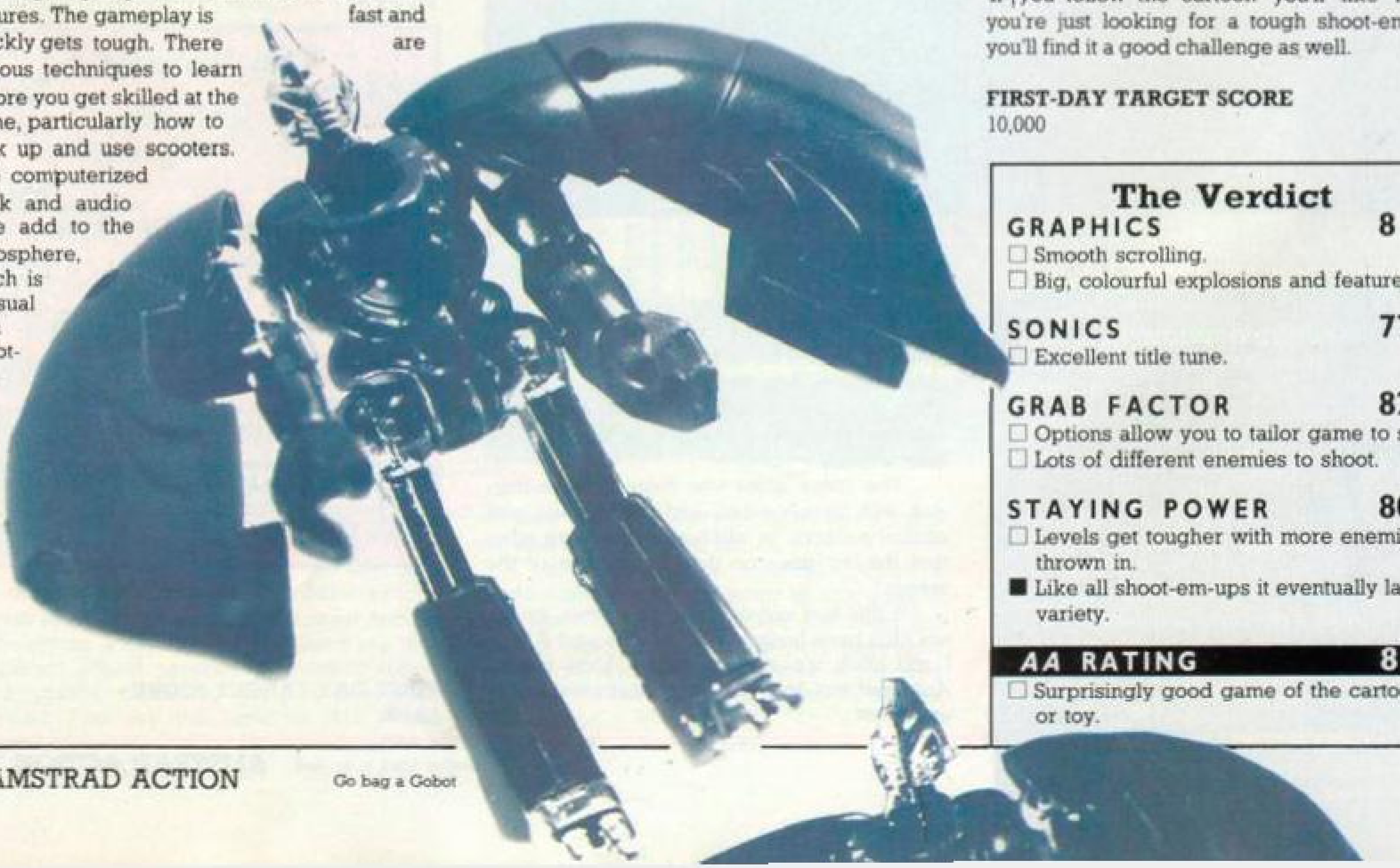
GRAPHICS 81%
- ☐ Smooth scrolling.
- ☐ Big, colourful explosions and features.

SONICS 77%
- ☐ Excellent title tune.

GRAB FACTOR 82%
- ☐ Options allow you to tailor game to suit.
- ☐ Lots of different enemies to shoot.

STAYING POWER 80%
- ☐ Levels get tougher with more enemies thrown in.
- ■ Like all shoot-em-ups it eventually lacks variety.

AA RATING 81%
- ☐ Surprisingly good game of the cartoon or toy.



Go bag a Gobot

LEVIATHAN

English Software, £8.95 cass, £12.95 disk, joystick or keys

There haven't been any games for the Amstrad on the *Zaxxon* theme. The main reason seems to be Arnold's scrolling: depending on the method chosen, it's either slow and jerky or too fast for comfort. English seems to have broken the mould.

Your objective is to fly over the diagonally scrolling landscape and shoot anything that moves. Not the landscape, dumbo, but those nasty enemy ships that rove around in groups. There are three zones – each loaded separately – which have a certain alien ethos about them. That's okay. What's not good for the digestive system is the hordes of enemies: blue ones, red ones, multi-coloured ones, see-through ones. Many have haphazard flight paths, making it a tough job to stay alive. And that's it. Survive the levels and proceed to the next zone, survive the levels and proceed...

Loading the game treats you to a driving three-channel beat. Nothing astoundingly new, but pleasant nonetheless. Start the game and wow! The landscape graphics are stunning, albeit mono-coloured. Lack of colour is balanced by the alien ships – when they arrive – if they stay on screen long enough and if you live that long. Their movement is difficult to follow. And, due to the perspective, it's very hard to line your craft with theirs to get a shot in. Dodging them is harder still: the controls are sluggish and not immediately obvious. Add to that a craft that suffers from inertia and... aarghhh.

English has managed a half-decent scroll. I say half-decent because, when your ship is travelling at normal speed, the landscape judders. In pursuit, however, everything flies by – smooth as silk.

SECOND OPINION

I was disappointed by this one because it promised so much. Everything is there except decent control over the spaceship. It's just too slow to be enjoyable and causes frequent deaths. The collision-detection also seemed way off at times. A lot of practice will be needed if you're going to get far, but that may prove rewarding. **BW**

GREEN SCREEN VIEW

Not always easy to pick the aliens out.

It is such a shame that *Leviathan* falls down in a few areas. It could easily have been a terrific game. As it stands, it is fun if you can come to terms with the controls. Apart from that, the idea, the graphics and sound are first-class. **RpM**

FIRST-DAY TARGET SCORE
Survive more than 10 minutes

The Verdict

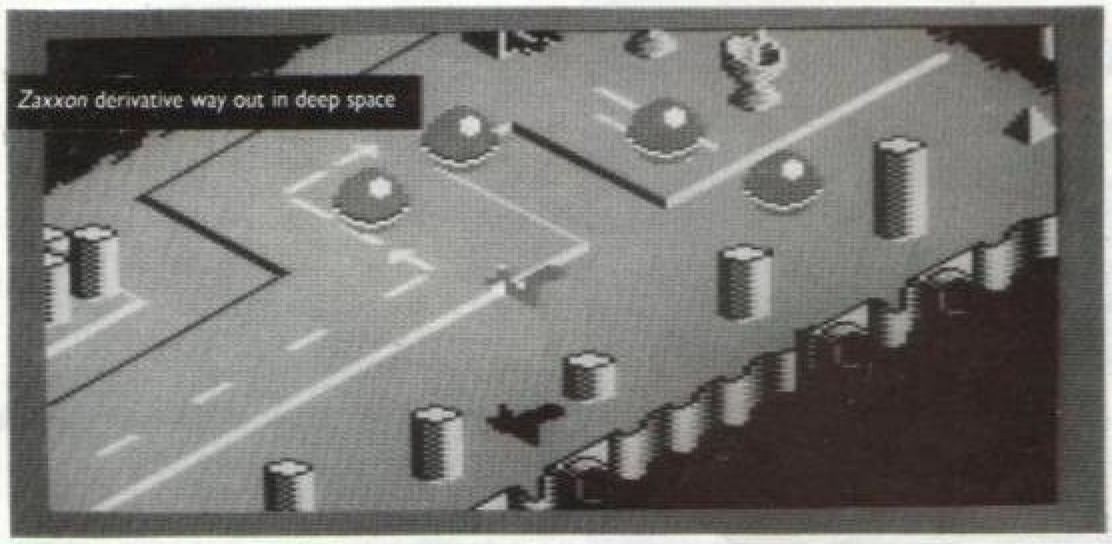
GRAPHICS 81%
- ☐ Detailed and interesting to look at.
- ☐ Four different backgrounds.

SONICS 78%
- ☐ Driving beat and in-game effects excellent.
- ■ The style is getting a bit repetitive.

GRAB FACTOR 60%
- ☐ Game concept makes you want to try it.
- ■ Controls are dreaful.

STAYING POWER 63%
- ☐ Lots of levels and aliens if you can persevere.

AA RATING 66%
- ■ Not all it could have been.



Zaxxon derivative way out in deep space

MR WEEMS AND THE SHE-VAMPIRES

Piranha, £8.95 cass, £14.95 disk, joystick or keys

Lots of imagination obviously went into the title, but not so much into the game design. It's another *Gauntlet* derivative. You play Mr Weems, a bespectacled, harmless little man whom you'd expect to find in an accountant's office.

You find yourself plonked down in the She-Vampire's mansion and must make your way through six levels packed with her deadly minions. At the end you have to bump off the Great She-Vampire and head for the exit at full speed.

SECOND OPINION

I found the screens cluttered and lacking colour. Lots of objects and monsters – a trifle confusing. And the sound: well, it didn't cause any excitment. The game isn't bad, it's just that it has been done before. Not once, not twice, not... In all fairness, though, the graphics are detailed and theres's lots to explore. **RpM**

GREEN SCREEN VIEW

Some levels are not as clear as they could be.

The six levels of the mansion are littered with coffins and jars, which produce the killer minions. These come in the form of bats, Frankenstein monsters and She-Vampires. You can bump these off with the garlic gun you carry or explode a garlic bomb, if you've picked one up, which will clear the whole screen. Once the screen is cleared you can shoot the coffins to stop the minions coming back when you return to the screen.

On each of the first five levels there is a secret weapon you have to find. All five are needed to eliminate the Great She-Vampire. They aren't always easy to find because the levels include hidden doorways and transporter blocks.

The Verdict

GRAPHICS 64%
- ☐ Detailed characters and scenery.
- ■ Poor use of colour.

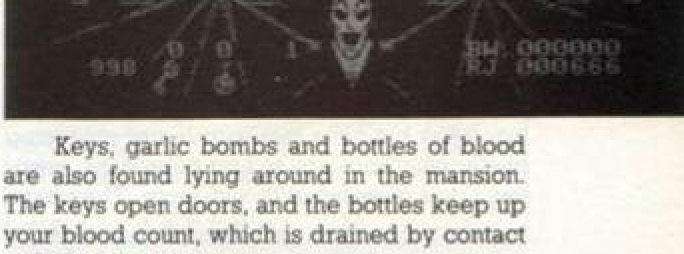
SONICS 17%
- ■ Three mice breaking wind.

GRAB FACTOR 62%
- ☐ Quite addictive exploring and shooting.
- ■ The *Gauntlet* format is rapidly getting boring.

STAYING POWER 57%
- ☐ Hard going and lots to explore.
- ■ Little variety in the action.

AA RATING 60%
- ☐ Great title...
- ■ could have been a better game.

Mr Weems copes admirably with the mansion's horrors



Keys, garlic bombs and bottles of blood are also found lying around in the mansion. The keys open doors, and the bottles keep up your blood count, which is drained by contact with the monsters.

The gameplay is much like any other *Gauntlet* derivative. I'm finding it increasingly difficult to get excited about them. This one's got detailed graphics but very little colour. It's hard enough to cause plenty of problems, and you'll have to do a lot of exploring. Personally I'm looking forward to meeting the She-Vampires at the *PCW* show. **BW**

FIRST-DAY TARGET SCORE
500

No, he doesn't wash his underpants

ARMY MOVES

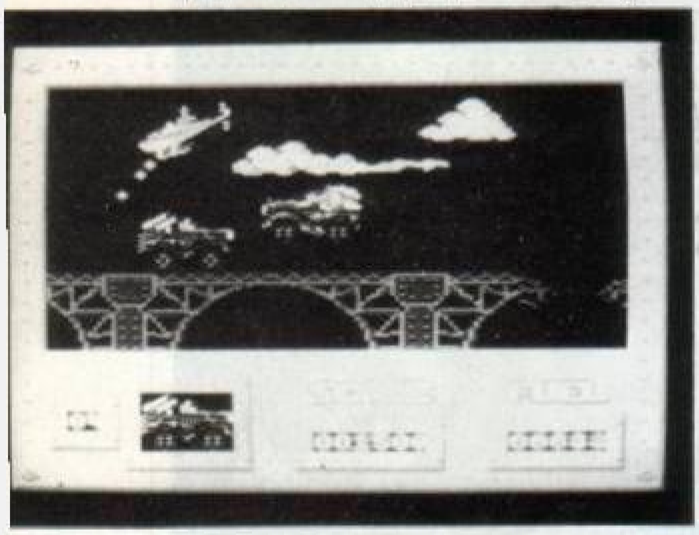
Imagine, £8.95 cass, £14.95 disk, joystick or keys

There are two games from Spain in the issue, this one and *Livingstone*, with more promised for later in the year. The evidence so far is that it could be as fruitful a source as France. *Army Moves* is by Dinamic and certainly has some excellent graphics, but does have some gameplay problems.

It's a seven-part battle to raid an enemy headquarters, loading in two sections of four and three stages. Straight away I should reveal that we had a cheat version; otherwise I wouldn't have got off the first stage, a problem that I'll get back to later.

For stage one you drive a jeep across a damaged bridge. Stages two, three and four put you in control of a helicopter. You're on foot in stages five, six and seven for the final assault. With each mode of moving you have two different types of weapon, both of which you'll need frequently.

Flying helicopters and jeeps as you cross the bridge.



SECOND OPINION

The graphics and animation are delightful. The explosions and their accompanying sound-effects are satisfying. A polished game in almost every aspect – except its unplayability. It's just too hard. How anyone is supposed to complete the first stage without a poke is beyond me. Still, it's worth a look.

RpM

GREEN SCREEN VIEW

Looks more like camouflage, but is playable

The bridge has three dangers: helicopters, jeeps and gaps in the bridge. Use ground-to-air missiles, ground-to-ground missiles and jumping, respectively. The three helicopter stages pit you against fighters, with the added danger of missile silos, submarines and gun turrets. The chopper is armed with bombs and air-to-air missiles.

The final stages on foot take you through a jungle swamp, where you have to leap along stepping stones, cross a heavily defended compound and find the safe in the enemy headquarters. Your weapons are a machine-gun and grenades, against jungle birds and lots of enemy soldiers.

The graphics on all the stages are excellent: large colourful sprites and smooth horizontal scrolling. The problem is that on the early stages it's virtually impossible to succeed. Not only is it difficult, but you get returned to the start every time you die. The twin Fire buttons are also a problem. I ended up playing with joystick, my big toe operating the spacebar as the second Fire button.

The foot stages get easier, but you may never get there. The gameplay also gets repetitive; hammering away at the Fire button will wear out many fingers, never mind strain the stick. A good game but very frustrating. **BW**

The Verdict

GRAPHICS 86%
- ☐ Lots of large colourful sprites.
- ☐ Smooth scrolling and great scenery.

SONICS 64%
- ☐ Fair title tune and in-game effects.

GRAB FACTOR 52%
- ■ Far too difficult in the early stages.
- ■ Restarts the stage every time you die.

STAYING POWER 63%
- ☐ Seven difficult and varied stages.
- ☐ A real joystick-wrecker.

AA RATING 58%
- ☐ Good Spanish game but needs tweaking.

FIRST-DAY TARGET SCORE
Complete stage one.

METROCROSS

US Gold, £9.99 cass, £14.99 disk, joystick or keys

The latest arcade conversion from US Gold continues its current improvement which started with *Gauntlet*. Games like *Super Cycle* and *Leaderboard* have been a distinct improvement on previous poor efforts so let's hope the trend continues.

Metrocross is set on a chequered pathway that scrolls right to left across the screen. You control a man who has to run along the path trying to avoid the obstacles peppered along it. There are 24 levels and the path on each has to be completed within a time limit. Counters at the bottom of the screen tell you how far you have left to go and how much time there is.

If you move to the right of the screen you run faster but have less warning of oncoming obstacles. There are rolling coke cans, hurdles, pools of water, rats and more. They have varying effects if you hit them: they flatten you, trip you up or slow you down, but all of them cost time.

SECOND OPINION

An hilarious game. The accompanying soundtrack and wonderfully animated character make this a real giggle. It's great fun to trip on a hurdle and go reeling. Better is to get flattened by a coke can. An enjoyable came that will bring a smile to your face. **RpM**

GREEN SCREEN VIEW

No troubles.

You can run round obstacles or jump over them. You also get help from various other objects on the route. Green cans will speed you up; jumping on a blue can will temporarily stop the timer. Hopping on a skateboard is fun: you can roll right over some obstacles. Most spectacular are the springboards, which catapult you forward down the route.

The scrolling isn't very smooth but you don't notice it much. The graphics are good; backgrounds vary on each route. The gameplay is demanding and from route five onward things get very tough. It will present a good long-term challenge and is pleasingly addictive. **BW**

FIRST-DAY TARGET SCORE
Complete Round 5

The Verdict

GRAPHICS 74%
- ☐ Detailed and colourful backgrounds and features.
- ■ Scrolling is jerky.

SONICS 76%
- ☐ Compulsive music plays constantly.

GRAB FACTOR 78%
- ☐ Tracks are initially easy but get tougher.
- ☐ Good variety of obstacles and features.

STAYING POWER 77%
- ☐ 24 tracks that get very tough.
- ■ Fail a track and you've got to start all over again.

AA RATING 76%
- ☐ A good conversion with many original touches.



Skateboards are back in style

STRYFE

Ere, £9.95 cass, £14.95 disk, joystick or keys

Even the French are into the *Gauntlet*-cloning business, but this one's come a bit late to cash in on the success of the format. It's got the standard scenario of good vs evil, fantasy, demon, gnome and faerie that is completely irrelevant to the action.

It's a one- or two-player game. I actually found it easier with just one. It's broken into sections, each composed of four screens. On each set of screens you'll find a silver key and a gold key. You must pick up the silver key before you can get the gold one, which in turn lets you open the door to the next set of screens.

You see the action from overhead, and the scenery changes as you progress through the levels. Among the buildings, vegetation and rocks you'll find other objects as well as the keys: treasure, potions and hams. The treasure increases your score, the hams replenish energy and the potions can be used against the monster generators.

Generators appear on all the screens and produce several types of monster. Some home in and drain energy, others will shoot at you as well. You can destroy them with axes or lightning bolts, depending whether you chose the fighter or sorcerer.

As *Gauntlet* clones go this is a bit too simplified. The game's fast and it's quite difficult to stay alive – but it needs more to make it interesting. The graphics and music are good but you'll rapidly get tired of the gameplay. The most annoying thing in two-player mode is going to and fro through doors and working out who's going to pick up the keys. **BW**

The Verdict

GRAPHICS 68%
- ☐ Varied background scenery.
- ☐ Colourful monsters.

SONICS 73%
- ☐ Echoey stereo tune plays throughout.

GRAB FACTOR 58%
- ☐ Fast reactions and concentration needed.
- ■ *Gauntlet* theme is wearing thin.

STAYING POWER 52%
- ☐ A lot of sections to get through.
- ■ Gets repetitive and over-simple.

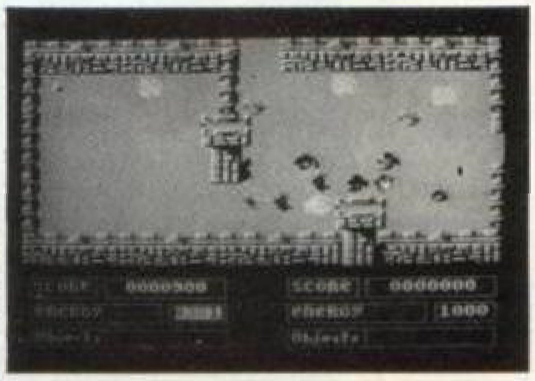
AA RATING 54%
- ■ *Gauntlet* clones have had their day.

SECOND OPINION

The action is much faster than Gauntlet. *Perhaps too fast. Two-player games are confusing – you tend to shoot your aide and mistake yourself for one of the monsters. Enjoyable, colourful, echoey stereo sound, but still a clone.* **RpM**

GREEN SCREEN VIEW

Easy to mistake the bad guys for yourself. But otherwise playable.



BUBBLER

Ultimate, £9.99 cass, £14.99 disk, joystick or keys

After our saying last issue that Ultimate had been quiet for a long while, it's released its second game in as many months. It's in 3D... but... is a definite departure from previous Ultimate titles.

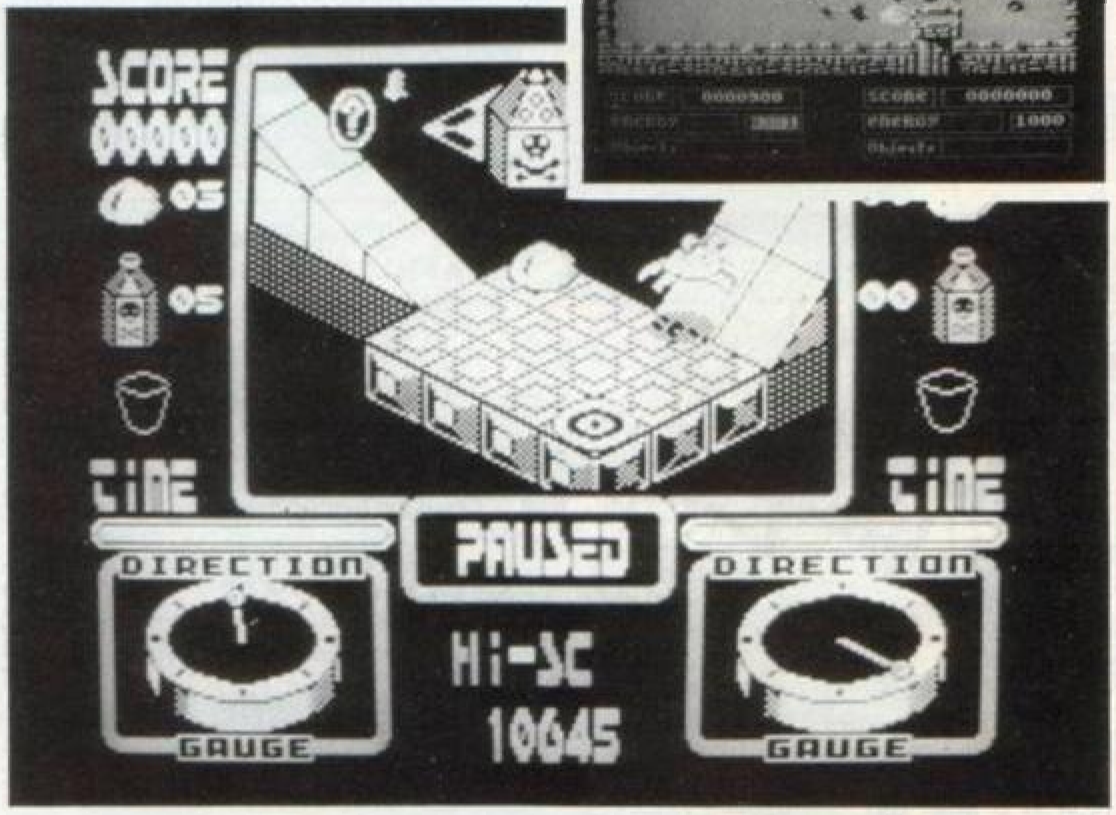
The idea is to explore a futuristic 3D landscape and cork alien bottles that are spewing nasty wotsits all over the place. You control a ball that spends most of its time on the ground looking like a flat tyre. You have two modes of travel – rolling and bouncing. The hard part is determining the direction.

You can move a pointer left and right and then push forward to move the ball that way. Pulling back causes the ball to bounce up; pushing forward straightaway will take it through the air. The level of control is quite fine and sensitive, but it is impossible to change direction quickly. Many deaths will result from that.

The landscape is composed of towers, slides, walkways and plateaus. You can roll up and down slopes and fall down chutes in some towers. When falling down a chute you also pick up a cork to put in a bottle.

The bottles are scattered around and produce bubbles which will float around and turn into other objects. These can be dangerous – like crabs, annoying things that push you around – or even handy things like bonus points.

Other squares also produce things. And they are always unhealthy. You're armed with a gun that shoots in the direction of movement. Unfortunately this can't deal with towers that sit and shoot bullets out around them; rapidly avoid these.



If you fall off into space, a spike punctures the ball – a fate awaiting many of the objects that materialize from bubbles. Bouncing on top of a bottle when carrying a cork will stop the production of bubbles. You have to cork several bottles before taking the exit to the next level.

It's an excellent game concept with many nice touches. But I feel it's let down slightly by the movement controls. These should have been simplified, leaving the player to concentrate on the puzzles. If you can get used to them it will provide lots of challenge and enjoyment. **BW**

SECOND OPINION

Three-dimensional view, horrible mono-channel musical ditties and stunning graphics – it has all the hallmarks of another Ultimate game. I'm glad Ultimate has climbed out of its rut and is producing original games once more. Bubbler *is amusing and isn't too difficult. Let down by awkward control.* **RpM**

GREEN SCREEN VIEW

All clear.

FIRST-DAY TARGET SCORE

Complete first level

The Verdict

GRAPHICS 67%
- ☐ Detailed characters and animation.
- ■ Little use of colour.

SONICS 36%
- ■ Yukky ditties and effects.

GRAB FACTOR 68%
- ☐ Bottle-corking idea is novel.
- ■ Controls are awkward and slow the action down.

STAYING POWER 78%
- ☐ Levels are very well designed to make things interesting.
- ☐ Tough to get far.

AA RATING 75%
- ☐ Original departure for Ultimate.

PNEUMATIC HAMMERS

Firebird, £1.99 cass, joystick or keys

Interesting game where you have to search for gold nuggets to make a handle to switch off a power plant. Something has been lost in conversion, though. It needs either better instructions or re-working.

The Verdict

GRAPHICS 46%
■ Screens are composed of simple, chunky graphics.

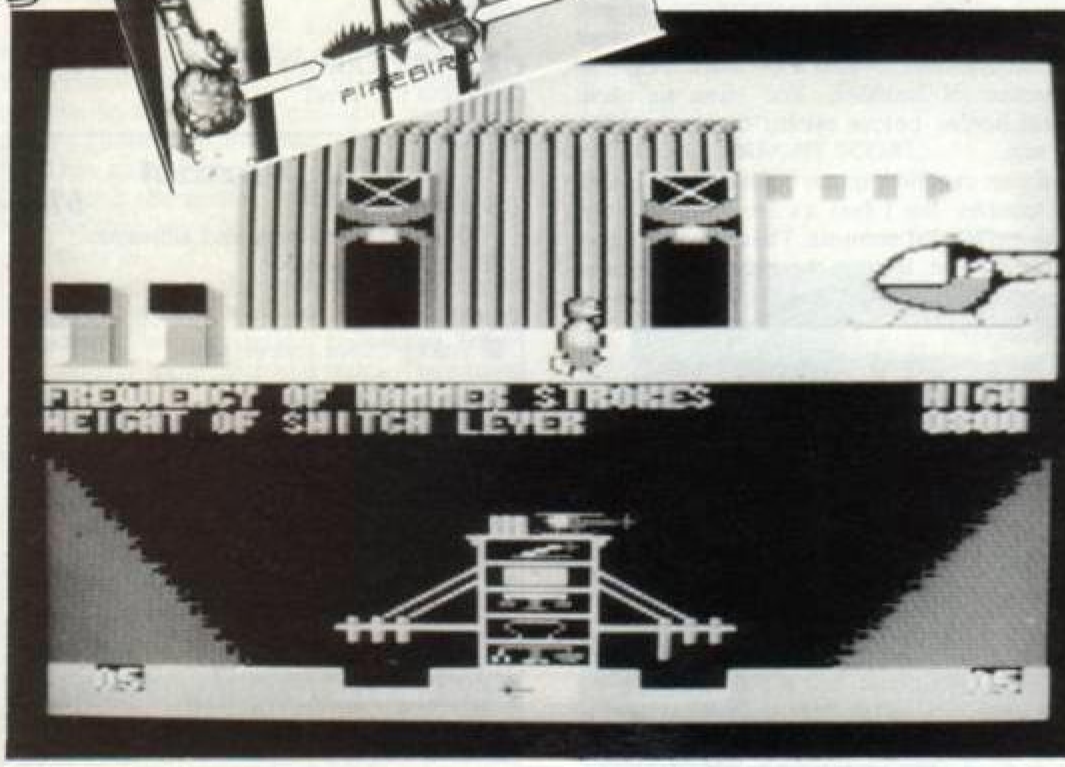
SONICS 16%
■ Hammers will give you a headache.

GRAB FACTOR 28%
□ Good idea for a game, initially intriguing.
■ Inadequate instructions make things confusing.

STAYING POWER 30%
□ Difficult task to complete.
■ Hammers make annoying gameplay as well as headaches.

AA RATING 28%
■ Nice idea but it doesn't work.





LEAGUE CHALLENGE

Atlantis, £2.99 cass, joystick or keys

A football strategy much like *Football Manager* and *Big League Soccer*. Graphics aren't outstanding but there's reasonable skill involved in the management tasks. Four leagues and cup competitions to take part in.



The Verdict

GRAPHICS 32%
■ Highlight sequences are slow and feature a dot for a ball.

SONICS 0%
■ Not a sausage, Brian.

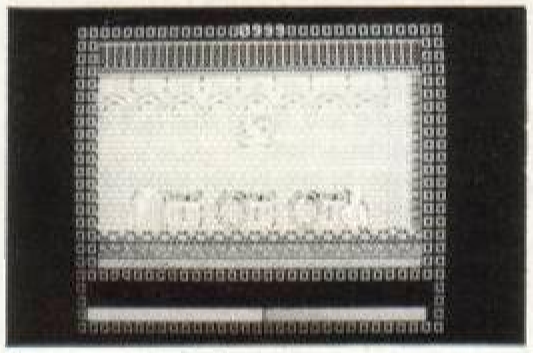
GRAB FACTOR 54%
□ Great for football fans.
■ Offers nothing new on previous games.

STAYING POWER 61%
□ Gets tough, particularly the monetary side of management.

AA RATING 62%
□ At the price it has the edge on *Football Manager* (also now budget).

THE FEAR

Mastertronic, £2.99 cass, keys only



The sequel to *Storm*. The graphics have been improved and made 3D. The gameplay is similar but tougher. Different type of two-player control, where they are in different locations and alternate moves.

The Verdict

GRAPHICS 66%
□ Well-designed scenery.
□ Nice character sprites.

SONICS 16%
■ Just a few effects.

GRAB FACTOR 68%
□ Novel type of two-player control.
■ Adds little new to the game format.

STAYING POWER 70%
□ Tougher than its predecessor.
□ Large playing area to explore.

AA RATING 70%
□ A worthy sequel to *Storm*.

JACKLE AND WIDE

Bulldog, £1.99 cass, joystick or keys

An arcade adventure that combines an overhead view of a park and side view of goings-on in the sewers. You've got to find an antidote, which means using various objects to get you to it.

The Verdict

GRAPHICS 53%
□ Detailed sewer screens.
■ Little use of colour.

SONICS 54%
■ A dull title tune.

GRAB FACTOR 56%
□ Interesting areas to explore.
■ Puzzles aren't easy to get into.

STAYING POWER 62%
□ Will be a tricky one to solve.
■ Nothing to really get you excited or hooked.

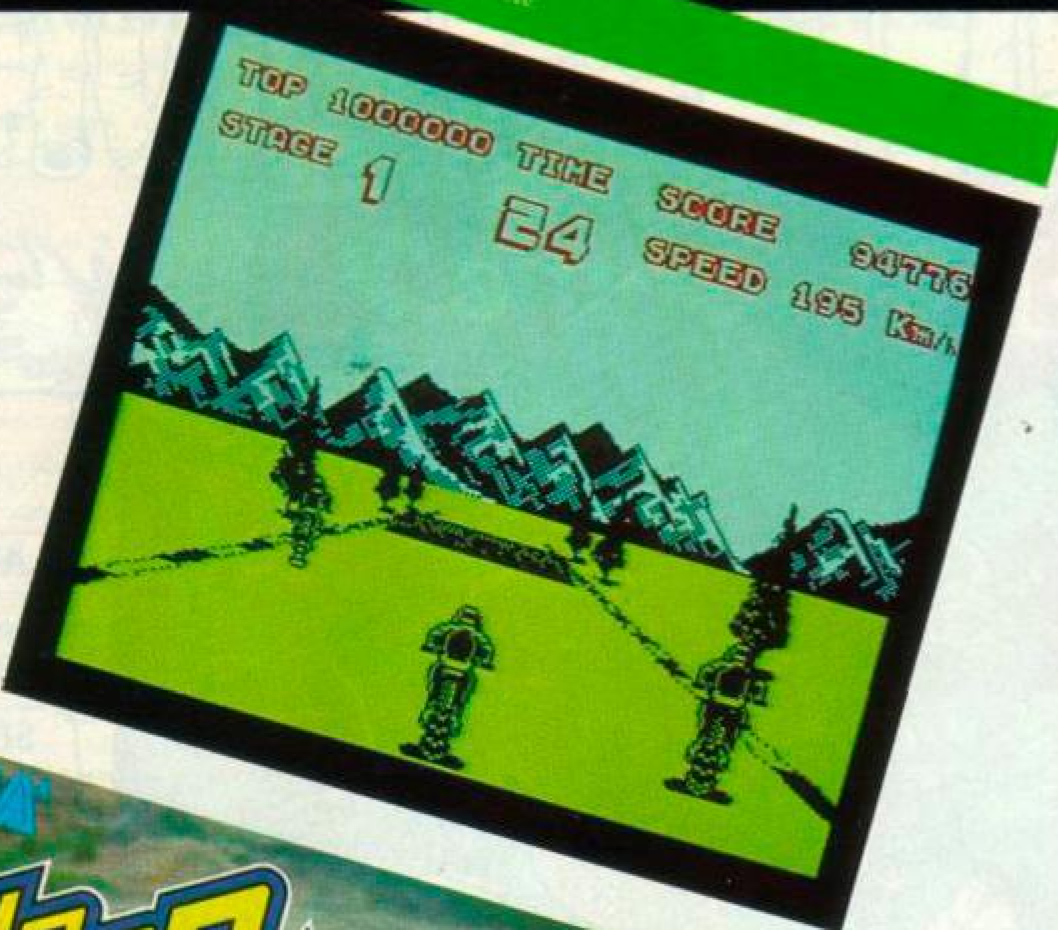
AA RATING 61%
□ Interesting departure for Stephen Curtis from his previous games.

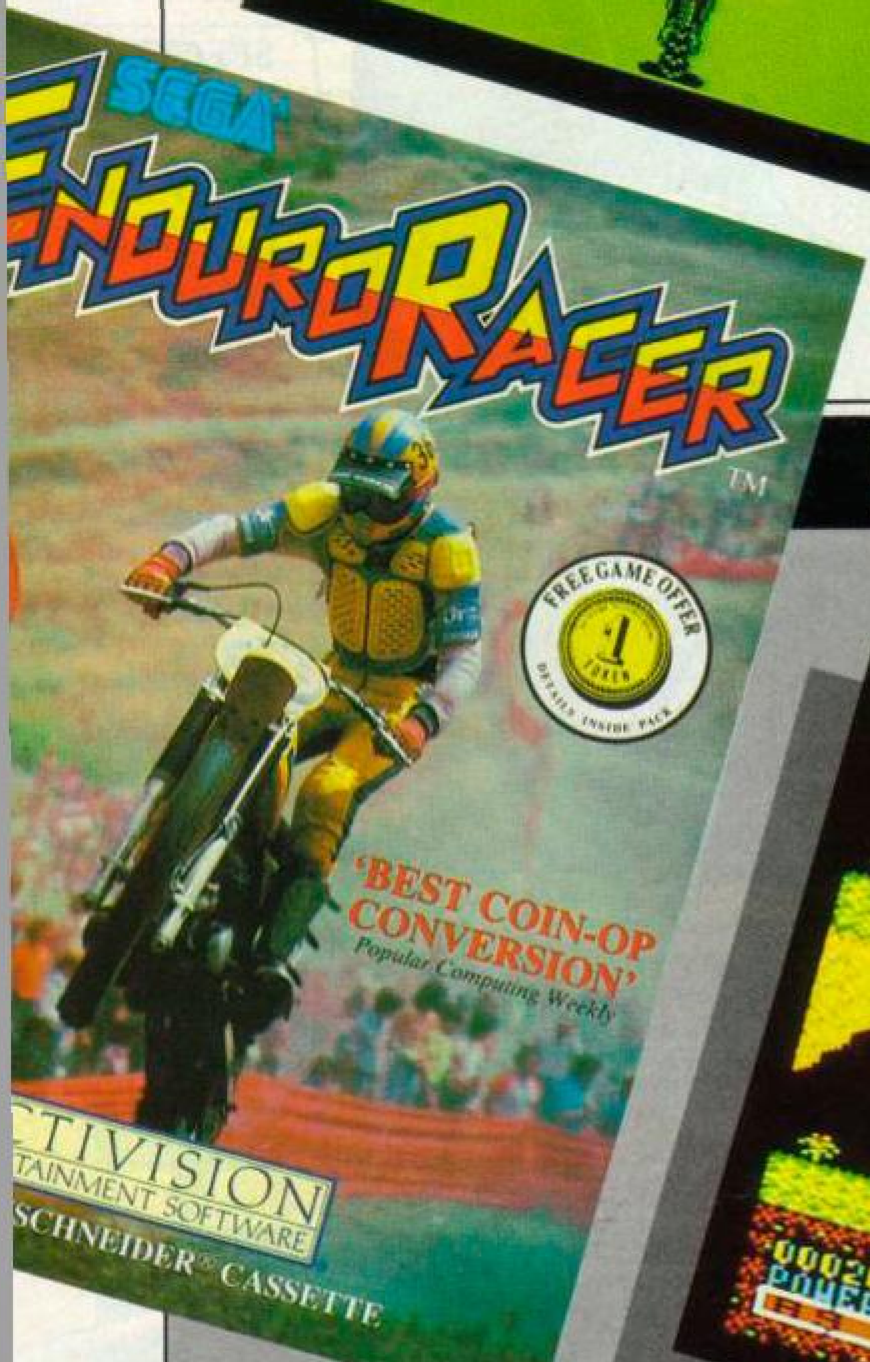

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ENDURO RACER

Activision, £9.99 cass, £14.99 disk, joystick or keys

Brrrrrm, brrrrrrm, wheeeeeeeee!





Activision has been absent from the software charts for some time but looks set to re-emerge as a force in the industry. This arcade conversion is already a success on other formats and should keep most racing-game fans happy.

It's another motorbike-racing game – at the moment they seem to be as popular as *Breakout* clones. You have to drive through five stages of dangerous roads on a bike with

The Verdict

GRAPHICS 78%
- ☐ Detailed objects and animation.
- ☐ Excellent altering perspective.
- ■ Disappointing lack of colour.

SONICS 42%
- ■ Engine noise and crashes.

GRAB FACTOR 81%
- ☐ Surprisingly addictive gameplay.
- ☐ Stages are interesting and varied.

STAYING POWER 78%
- ☐ Stages get very tough.
- ■ Collision detection is inaccurate.

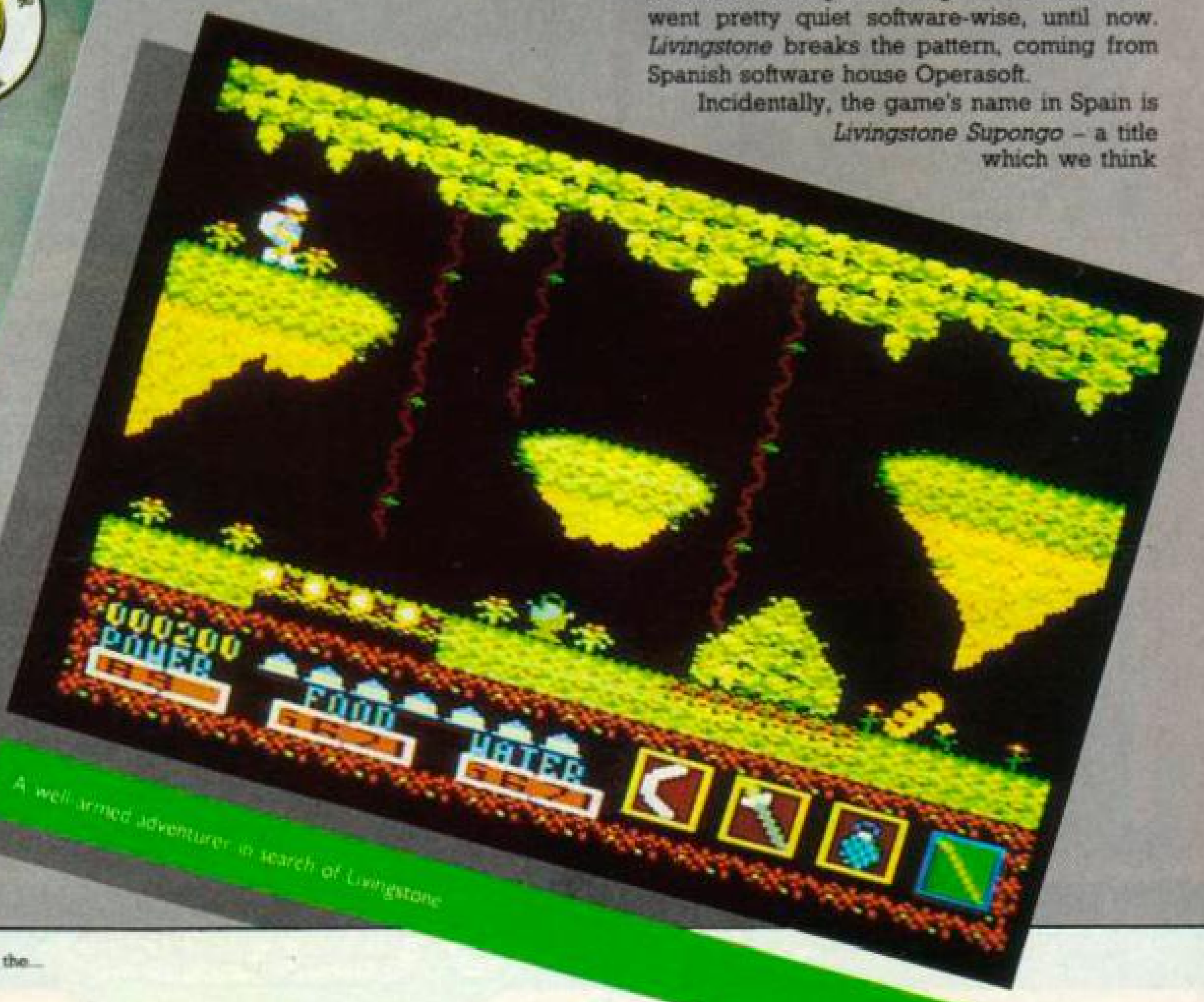
AA RATING 79%
- ☐ An excellent conversion.
- ■ Unoriginality and lack of colour are disappointing.

LIVINGSTONE, I PRESUME

Alligata, £8.95 cass, £14.95 disk, joystick or keys

Back at the dawn of time – well, a couple of years ago – Amsoft sourced some of its early software from Spain. Things in the Med then went pretty quiet software-wise, until now. *Livingstone* breaks the pattern, coming from Spanish software house Operasoft.

Incidentally, the game's name in Spain is *Livingstone Supongo* – a title which we think



A well-armed adventurer in search of Livingstone

large tread on its tyres and great resilience in its shock-absorbers.

Each of the five stages has different obstacles and a time limit. You must complete each in order to progress on to the next stage - you charge straight into the next with no breather.

SECOND OPINION

The graphics are rather a sore point on Enduro: *single-coloured and often lacking in depth. However, good animation and addictive gameplay make up for it. Tough to begin with, but once you know the circuits it shouldn't pose too much trouble. An average game.* **RpM**

GREEN SCREEN VIEW

Good in green.

The roadway is very convincing. It races toward you. You can see bends and obstacles coming; they don't just appear from nowhere. There are even humps in the road which change the whole perspective when you drive over them. Combine this with the responsiveness of the bike and you've got a game with an excellent "feel" to it.

The first stage is set in a forest, where the course is lined with trees. The second stage is a desert, the third a swamp, the fourth another desert and the fifth a snowy road. The courses have many bends of varying severity. When the rider leans right over he scrapes one foot along the ground.

At intervals what looks like a brick wall will loom in front of you. Don't panic. Just pull a wheelie and go sailing over it and anything else on the other side. Getting maximum speed over the jumps and not flying off to the side are the major skills you have to learn.

Apart from the jumps you should steer clear of other objects. You will be bumped off course and slowed down by other riders, rocks and the like, but hit something big or land on a rock and you'll get thrown off. This loses valuable time and should be avoided at all costs.

The graphics are detailed and there are some good animation sequences for jumping and crashes. There are even effects on the desert and water stages where dust and water fly off the back wheel. The first stage is relatively easy, but from there on it gets tough. Practice is the key to success - you must learn how to take the jumps correctly.

I found the game easy to play and surprisingly addictive. It's got a good feel to it, and although it doesn't score highly on its originality or use of colour I think you'll find it a very enjoyable challenge. **BW**

FIRST-DAY TARGET SCORE

Complete stage two



has much more ring to it. Its claim to fame: it rose to number-one there.

As you'll have guessed, the game sets you the task of finding dear old Doc Livingstone, who's gone wandering off in the jungle again. You may be inclined to leave him there because, to slightly misquote an old cliché, getting lost once could be a mistake but twice seems like carelessness. Anyway you can't shirk your responsibilities, so off we go.

You have to get through 64 screens inhabited by all sorts of jungle dangers and collect jewels on the way. To aid you there are four weapons which can kill off enemies or get you past obstacles.

The four tools are a boomerang (wrong continent?), dagger, grenade and a pole. The first three are very much offensive weapons for hitting things and people. The pole isn't for fighting but for vaulting onto or over objects.

The boomerang will curve away from you when thrown and return if it doesn't go off screen. It's useful for taking out enemies on the upper part of the screen. The daggers just fly straight out in front of you, dipping slightly. The grenade lobs up in the air and then falls, so it can be used against objects just above or well below you.

Each weapon has a strength gauge. You must set it before use by holding the Fire button down for the desired length of time - the longer you hold it, the more effort will be put into throwing the weapon or the further the pole will vault you. There are two other gauges indicating your food and water status: you must keep them up by picking up supplies.

The dangers are many and varied. In the start screens you'll run into a lot of snakes, killer plants (straight out of the Little Shop of Horrors), deadly fish, coconut-throwing apes in trees and some intensely annoying seagulls. Most of these can be killed with one or other of the weapons. But you also need to watch out for falling in lakes, quicksand and pits.

The further you go the harder the hazards become. Natives will start attacking you with spears, blowpipes and even black magic. Initially you'll get caught out by dangers all over the place but as you learn the game layout and how to use the weapons you'll find it easier.

The graphics are colourful and detailed and there are nice effects like the pole-vault animation. The game is tough: it's very easy to lose lives. But the variety of hazards and weapons mean it's addictive trying to explore a bit further. It's a shame that getting out of the first jungle section is so difficult, but once you've worked that out things become a bit clearer. **BW**

SECOND OPINION

You control an amusing character that can pole-vault, throw boomerangs and lob the occasional grenade - it's obvious he's unsure of his nationality. This lad's task is to locate Livingston. I took to this Spanish game: its humour and demanding tasks are enough to keep me satisfied. **RpM**

GREEN SCREEN VIEW

The occasional beastie may lose itself in green.

FIRST-DAY TARGET SCORE

Get first jewel and find waterfall exit

The Verdict

GRAPHICS 73%
- ☐ Detailed and colourful jungle scenery.
- ☐ Good variety of characters and effects.

SONICS 54%
- ☐ Nice title tune.
- ■ Few in-game effects.

GRAB FACTOR 76%
- ☐ Great variety of weapons, tasks and adversaries.
- ■ A bit tough to start with.

STAYING POWER 74%
- ☐ The 64 screens are difficult to get through.

AA RATING 75%
- ☐ Good original program from a new source, Spain.

DETECT A PRIZE

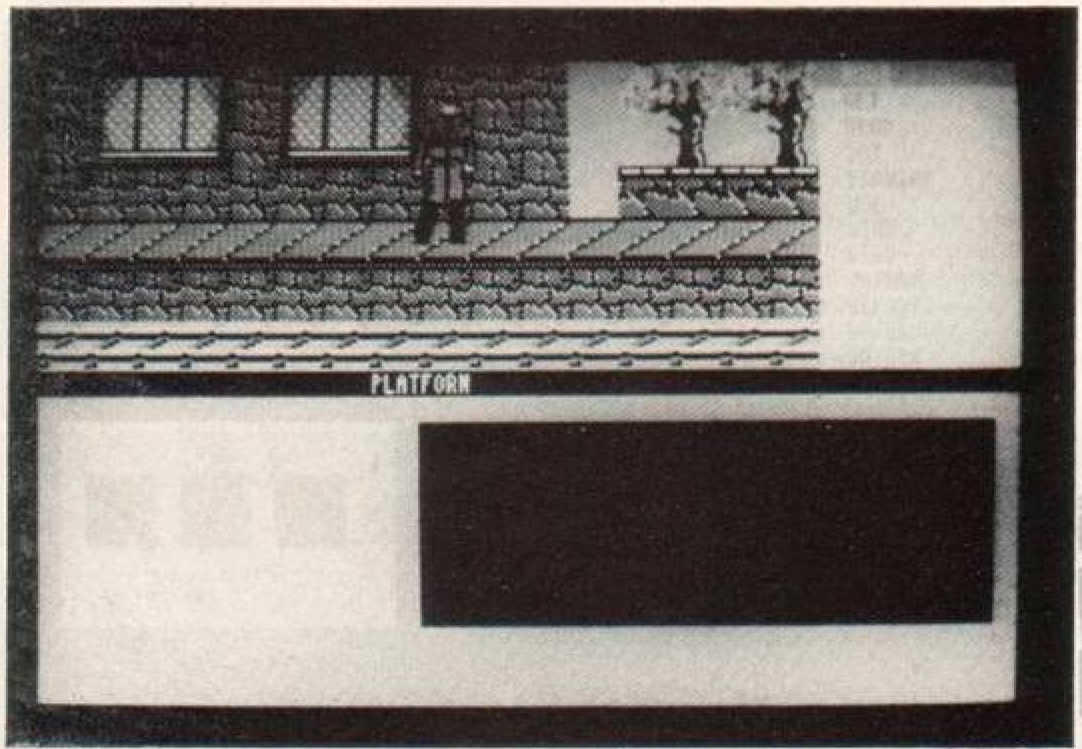
Budding detectives can win a camera or one of 30 copies of *The Mystery of Arkham Manor*

Gumshoes all over the country will be reaching for their magnifying glasses and deerstalker hats at the prospect of getting their fingerprints all over *The Mystery of Arkham Manor*. Not only that but there's a pocket camera up for grabs as well, so that you can sneak around taking undercover photos of suspects – or maybe some holiday snaps in Marbella?

To get the camera or one of 30 copies of the game, all you have to do is solve a murder mystery. It works like this: I'm going to murder someone and to win the prize you have to give me a cast-iron alibi... no... no... no, that's not it. Ah yes, I'm going to give you a load of information about a fictitious murder and a list of suspects. All you have to do is work out whodunnit.

Suspects

- **Prof. Karl "Lenin" Wade**: drinks like a fish but is a confirmed vegetarian.
- **Dr Ebenezer Monteiro**: has been arrested for burglary and is allergic to cats.
- **Miss Lola Tavener**: petrified of heights, gave up smoking four years ago.
- **Norman St John Gilham, MP**: suffers terribly with hayfever and is a fanatical reader of car magazines.
- **Lord Nagel of Maple**: a teetotaller who gets his kicks from computers.
- **Bertie "Knuckles" Alderton**: smokes like a chimney and has failed 17 driving tests.







Here's the eyewitness account on the murder, following which is the list of suspects. From that you should be able to deduce the name of the murderer.

"I was coming home late from work to the block of flats where I live. It was the middle of summer and hot and humid, and I paused for breath as I climbed the stairs. Just then I heard a scream followed by a single gunshot.

I raced up the stairs and heard a sneeze from one of the rooms. A chink of light showed underneath the door. I banged on the door but there was no answer. It was locked so I kicked it open.

Inside there was a woman's body lying on the floor, a broken glass still clutched in her hand. The window was open and a rope had been slung out of it. I looked out, just in time to see a figure disappear into a car and drive off. It was too dark to make out who the figure was or the make of car.

After calling the police I surveyed the room. There was a second glass full of whisky on the table and two cigarette butts of different brands in an ashtray. The victim was wearing an evening gown, and the air was filled with the smell of perfume. By her side lay a women's magazine and a handbag from which some £20 notes had spilt. In a chair across the room was a computer magazine. A meal had been prepared in the kitchen – two helpings of steak-and-kidney pie. On the shelves were tins of cat food.

The police arrived and naturally they found it very easy to work out whodunnit.

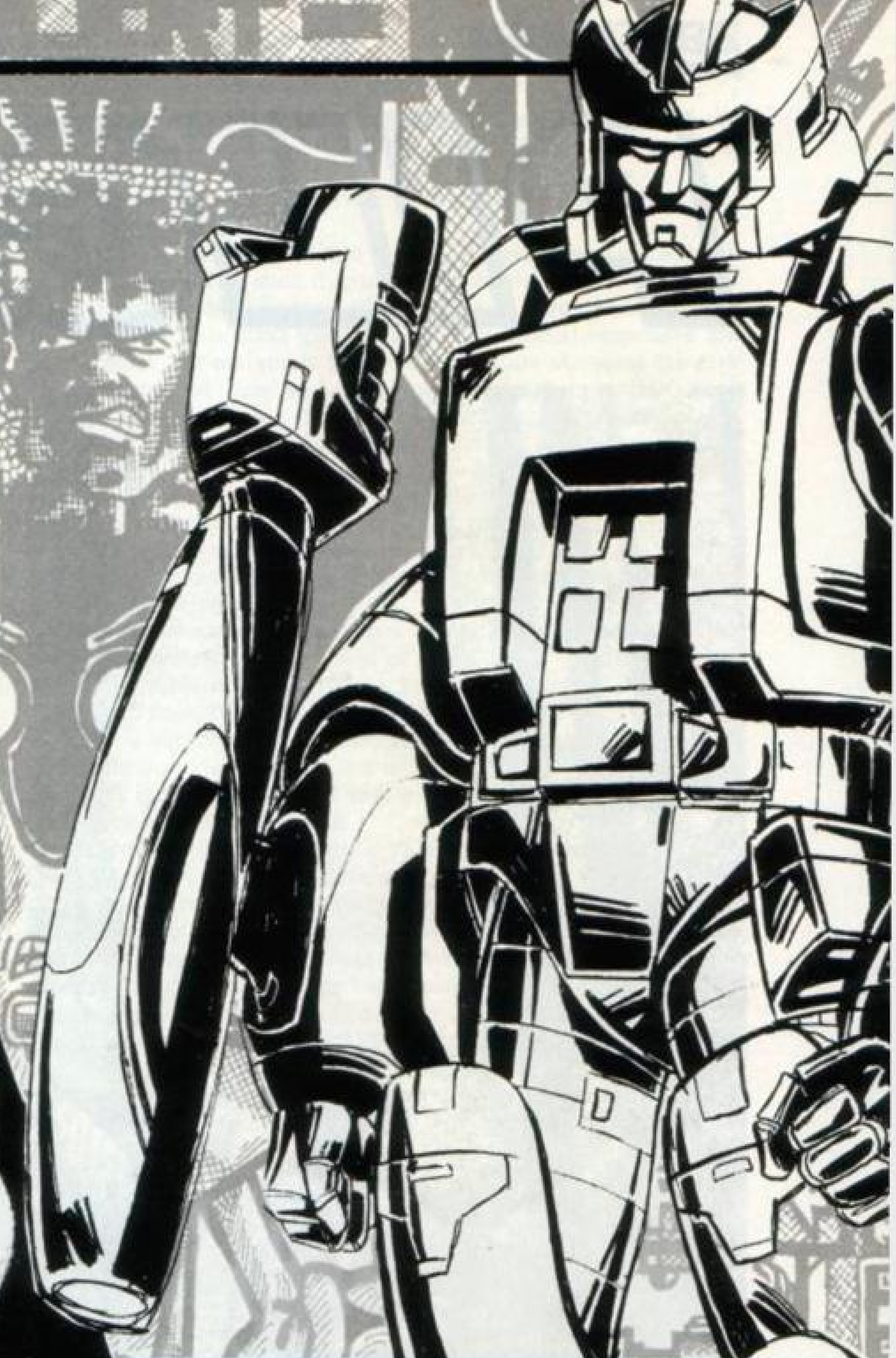
Can you?"

Sending your entry

When you think you know who did it, write the name on the back of a postcard or stuck-down envelope, along with your own name and address. Then send it to ***Arkham Manor* Comp, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ**.

Entries should reach us by June 12.







EASIART WINNERS

Rob Paul of Peterborough is the worthy winner of *Easiart* and a joystick for his line drawing of "The Return of the Blue Alien (and Blob) in Big Brother." The judges were impressed by the detail, sense of humour and imagination that had gone into the picture.

The five runners-up were all superbly done, being notable for the different media used and subject matter. **Aidan J Wilson** of Galway produced some futuristic robots in ballpoint pen. **Steve Kelly** of Motherwell did a beautiful pencil drawing of a woman's face. **Michael Pease** of Norwich did a symbolic (?) abstract in pencil-crayon. **An Dat Phung** of Dunfermline put some pencil-crayons and ballpoint to work on a planetscape. **Richard Spence** of Hillsborough, Co Down, got out the paintbox to produce a topical masterpiece based around a 464 and its games.

All the runners-up will be receiving a copy of *Easiart*. Many thanks to all the other entrants who can now claim their 20% discount from Micro Draw off the price of *Easiart*. Your entries have been passed on to them for verification when you ask for your discount: **Micro Draw, Slencrest House, 3 Tonbridge Road, Maidstone, Kent, ME16 8RL** ☎ (0622) 68 5481



THE PILGRIM



And this month, fellow Pilgs, the Man with the Rod and Staff brings you news of no less than four hot new releases – some so hot they haven't even reached the shelves yet! But have no fear: even as you read this, your local stockist will be placing orders for *The Guild of Thieves* (follow-up to *The Pawn*), Infocom's *Bureaucracy* (by *Hitchhiker* author Douglas Adams) and Melbourne House's *Mystery of Arkham Manor*. And if that's not enough for you, there's also Infogrames' *Murder on the Atlantic*.

What a pilgrimage!

Bureaucracy
Infocom/Activision, £34.95 disk

Quite frankly, I hate this game. The Pilg simply will not countenance the mind-boggling level of crass ineptitude and paranoia that slowly but surely overwhelms the player in this, the latest Infocom masterpiece. By gad, sir! It shouldn't be allowed! That Douglas Adams chappie should be clapped in irons!

Let me tell you the whole, the horrible, the hideous truth. It all starts like this...

You have just received a letter from your new employer Happitec, to tell you that the company is laying on a free trip to Paris. It's also sending you a cheque for $75 spending money. All you have to do is take the letter to your local travel agent, who will exchange it for an air ticket. Then you grab a taxi to the airport and you're away! You lucky devil, you...

That is where the nightmare begins. You see, there has been this teensy-weensy spot of bother with the bank. On starting work for Happitec, you moved to a new address and... ooops!... the bank seems to have mislaid your change-of-address slip. So it has sent all your documents to the *wrong* address... and it has cancelled your credit cards because it hasn't heard from you. No sweat, mate, you think, just grab Happitec's cheque and skedaddle off to Paris. Sort the mess out when your return.



Ho no, clever dick. Things ain't that easy. You see, the local mail system seems to be suffering somewhat, and your precious cheque has also been delivered to the wrong address. So off you go to find it.

As soon as you load up the game, all the inefficiencies and paranoias of our super-stream lined 20th-century society make themselves evident. To start with, you must fill in an on-screen license registration form (the first of many absurd bits of documentation) for the program itself. The form asks you for the names of your lovers, and passes rude comments about you and your personal attributes. It also refuses to fill itself in in the correct order. It is, in fact, just the sort of form we're accustomed to dealing with in everyday life.

You must then get the better of a hungry llama, an ancient matron with an elephant gun, and a highly unpredictable subscriber to *Popular Paranoia* magazine. This latter gentleman lives down the road in a house painted brown and green (for camouflage) and believes that yogurt is the breeding ground for all major modern diseases. As you approach his gate, he announces through the intercom, "Unfortunately I've got a radio connected to my brain" – and if you don't have the right reply to this and later equally insane remarks you'll find yourself stitched up by machine-gun fire. Ah well... neighbours! If it weren't that you needed to check up on their mail deliveries (in search of your cheque) you could do well without them.

By the way, I won't give you an excuse to slit your wrists at this stage by telling you that the cheque – when you eventually get it – is quite useless. Ooops...

Add to all this a game which features an infuriating cab company who won't take credit cards, a mad stamp-collector, a

fast-food restaurant that gives you the exact opposite of what you ordered (if you're lucky), a travelling nerd who keeps trying to sell you a "universal interface" and a parrot that chants fascist slogans and has a deep appreciation of Mikhail Gorbachov (or Ronald Reagan – its tastes change with each game), and you've got a very trying game. And all that's only the beginning...

You should by now have some idea why I hate this game so much, and why I am still playing it! The awful thing is that I simply have to urge you to go out and buy it... just keep the aspirin ready during play.

Atmosphere 92% Interaction 93% Challenge 94%
***AA* rating 89% (It costs £34!)**

Murder on the Atlantic

Infogrames, £14.95 cass, £19.95 disk

Oh dear, oh dear, oh dear. After having been rather, well, let us say not exactly complimentary about Infogrames' previous releases, the Pilg did *so* want to be able to rave about this latest effort. And... er... Oh dear, oh dear, oh dear...

Murder on the Atlantic is set aboard the ocean-going megaliner, SS Bourgogne. The action takes place at the end of the 1930s, and some poor chappie by the name of de la Vallière has been rubbed out by one of the voyageurs. Your task, mon cher, is to cherchez la femme (or l'homme) qui have done it.

The screen presents you with a sectional plan of the boat. It isn't exactly brimming over with graphical virtuosity, but simply shows the boat carved up into a number of boxes of varying shapes and sizes. Down on one side, when you first start playing, is a tiny flashing cursor which you can move about using the arrow keys. This is your position.

Of course just moving a little blob about the screen would not a Number 1 Game make, so what you must do is press the Copy (display) key followed by the F (examine) key, whereupon a little graphical picture of your location flashes onto a small window below the boat and, in another window alongside, you get a brief text description.

Ninety-five percent of the time, this text description reads `There is Nothing.`

Other commands (and I give you all of them) are: R – look at characters – there are quite a few of these, and each one is represented by a rather snappy little digitized cameo portrait. There's even one of Captain Haddock from the Tintin books (surely a breach of copyright or trademark there).

O opens things, A (action/autopsy) performs certain preprogrammed actions, or in some cases (where bodies are concerned) an autopsy. I (interrogate) elicits statements from some of the characters, P gives you a list of pics of the cast (halted by pressing CLR), and ESC... escapes.

With these at your command, you manoeuvre your flashing cursor about the ship (waiting at lift shafts, where you call the lift by pressing the up-arrow), looking, interrogating and finding things. All the time you would need to be taking notes so that eventually you can piece together all the evidence and point your finger at the criminal(s).

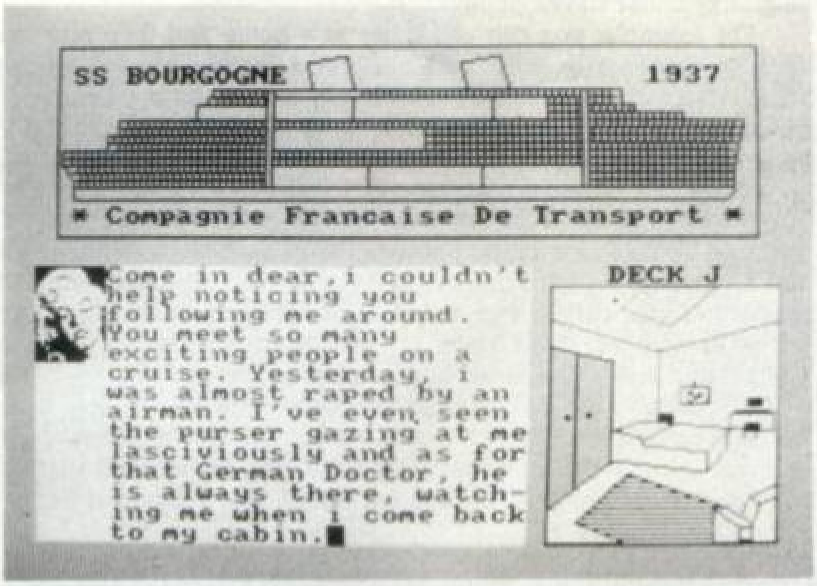
So what's wrong? Why is such a good game idea (which it is) not such a great game?

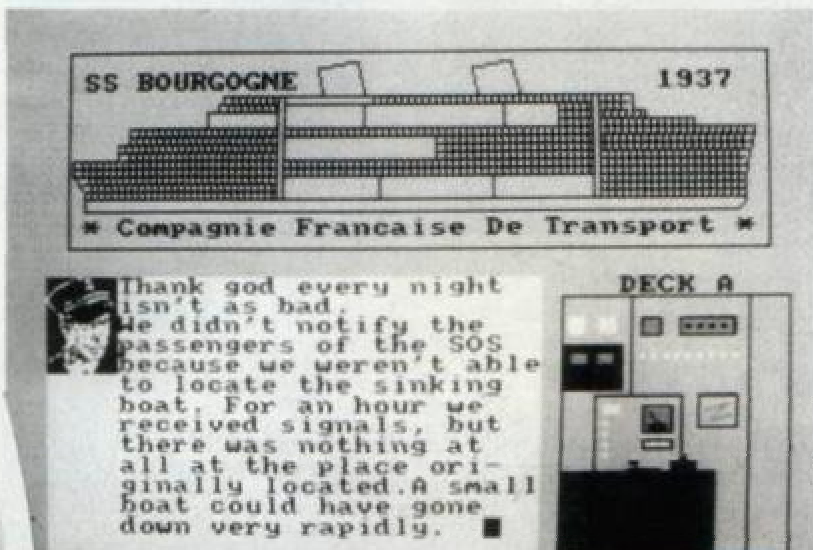
Well the first thing is that it's appallingly programmed – in Basic, I suspect. The main display at which you stare as you move about is devastatingly uninteresting and could have done with a bit of attention from a good graphic artist. The textual responses are for the most part extremely brief – the program accesses the disk to load in most of them, so I can't imagine why there couldn't have been more. Incidentally, this access point is pretty significant if you've got a 464 without disk drive – there is a tape version, but quite frankly I wouldn't want to touch it – another example of poor program design. Finally, there is very little true interaction between the game and the player: for the most part, you simply press a button and receive a brief textual message. What fun there is in the game comes from your own efforts at deduction rather than from what you're seeing on screen.

The game comes with all sorts of bumpf in the package – ink cartridges, visiting cards, a piece of string, rather after the Infocom style of presentation. Alas, the packaging is where all comparison ends. Even then, I'd rather have had just one good manual than, for example, a slip of paper with words "My honeybun, I will see you tonight for you know what at the usual place. M" written on it. The manual is clumsily translated and, in parts, unclear as to how you should actually play the game.

However in the final analysis it's the programming that lets this idea down. The game itself doesn't really do any work at all – it simply allows you to discover a series of facts which you then have to piece together. I can appreciate that the deductive process can be quite intriguing, but people buy computer games in order to see exciting and interesting things happening on the screen, not in their own heads.

Things would be different if, for example, there were a parser that enabled you to communicate properly with the suspects, or if there were a complex screen display showing things happening in









different areas of the ship. As it is, the player has to do all the work and the computer just behaves like a filing cabinet. Compare this with *Arkham Manor* previewed elsewhere in this month's scroll – a game that gives you information, a ram notebook, animated graphics, and even your own newspaper.

This game reminds me of the days when home computers were just taking off in this country – when people were happy to type in simple game listings from magazines (or buy them on tape from the classified ads) for the thrill of seeing their computers do anything more than display `Syntax error'` or work out biorhythms. Good ideas were legion but the market simply didn't have the programming expertise to turn out the sort of stuff we expect nowadays. The French have tremendous enthusiasm for home computing – and for l'Amstrad in particular at the moment – but this title at least would seem to suggest that they still have quite a way to go on the programming side.

Atmosphere 65% Interaction 24% Challenge 61%
***AA* rating 45%**

Preview...

The Guild of Thieves
Rainbird/Magnetic Scrolls



Guild is the latest offering from Magnetic Scrolls, which also brought you *The Pawn*. The Pilg has seen a prototype Commodore version and a finished Atari ST version and was very impressed – particularly by the pictures. Full judgement about the game itself must await the release of the authentic Amstrad version, but in the meantime here are some details to whet your appetites.

There's no doubt that Mag Scrolls has managed to come up with an excellent adventure-programming system. Its parser is the best I've seen and I would tend to think that it is now at least as good as Infocom's, if not (in some respects) better. It will certainly overtake the American competition in its revamped version (subsequently under development).

For example, you can put a key in a bottle and then pick up another container (a box, perhaps) and enter `Put the key in the bottle in the box`. That, fellow wanderers, is quite snappy programming. Even better, it's got the whole system running in such a way as to make it quite friendly for adventure writers. Very useful...

It seemed to the Pilg that most of the attention received by *The Pawn* was because of its graphics first, its parser second, and its storyline third. That's a pity, because the game itself was full of wit and originality, though I don't think Mag Scrolls has quite the same mastery of atmosphere and invention that Infocom manages to get out of its authors. *Guild* looks at least as strong as *The Pawn* in content and style, and better in presentation and parsing.

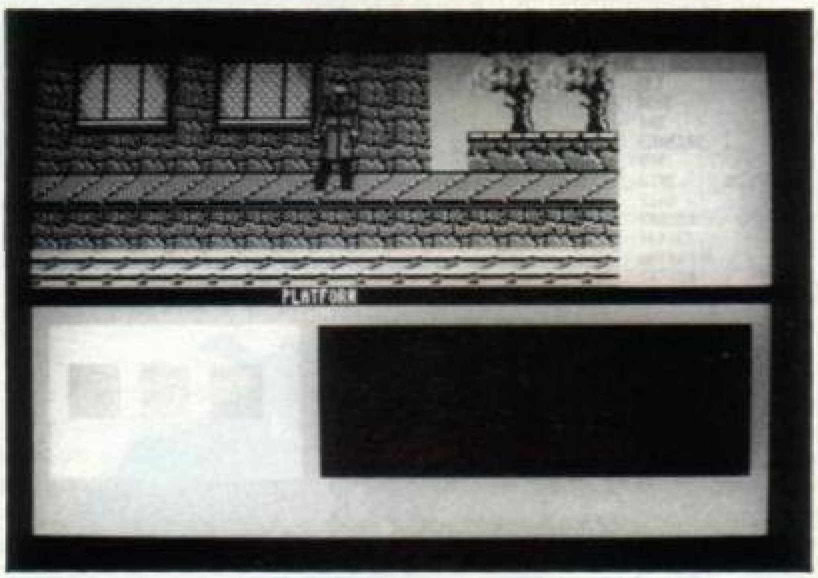
The basic idea behind this new adventure is that you must become a member of the infamous Guild of Thieves by successfully carrying out a series of dastardly crimes. The game comes in the usual sumptious Rainbird packaging, complete with Bank of Kerovnia bankers card, Guild of Thieves application for membership, and a copy of the latest issue of *What Burglar* magazine. The latter looks great, although it isn't quite as witty and original in content as the inspired title suggests. It does, however, include a whole set of encrypted clues to the game (as did *The Pawn*'s documentation) – an excellent habit which the Pilg wishes other companies would also adopt.

To what extent *Guild* lives up the reputation set by *The Pawn* must remain debatable until the Pilg has a chance to play the Amstrad version. From what I've seen so far, however, I reckon that it's likely to be number-one on many adventurers' shopping lists.



Preview...

Mystery of Arkham Manor
Melbourne House



Conventionally, games that feature joystick control and animated graphics have been labelled "arcade" games, and those that depend on textual input and display have been called "adventures". Melbourne House has been one of the most persistent dabblers in that well-practised art of trying to blend the two together and come up with a true "animated adventure", and Arkham Manor is the latest attempt.

MH started, as some older Pilgs may recall, with a game called *Zim Sala Bim* on the Commodore. This little jujube had a horizontal

picture window and a text-input area below. Whenever you entered, for example, Look, the character on the screen would turn his head and look around him, after which the prog would display a brief message below telling you what he could see.

Other games that have pursued this ideal include Gargoyle's *Tir Na Nog, Heavy on the Magick*, and (in some respects) some of the Infogrames titles. What's *Arkham Manor* like?

Well, it certainly *looks* nice. There are four windows, the largest of which shows you a graphic representation of the location. Central to this is the character you control, a local news reporter charged with investigating a series of odd goings-on in the vicinity of the aforesaid manor.

To the right of the location pic is a menu of options. You select an option using the arrow keys; on hitting the spacebar a further sub-menu is presented. For example, if you select "Examine", a little window will open with names of objects available for examination (either because they're in the location or in your inventory). Having entered a command in this fashion, the program then prints a brief response in the text window below.

There's also another multi-purpose window at the bottom of the screen which serves variously as a notepad (on which you can type notes referring to your investigation and recall them later) and a photograph album that holds three pictures captured by the "Camera" command (see below).

Arkham Manor has some very original and well-thought-out touches in it. To start with, as a news reporter you must earn your keep by submitting reports to your local paper. To help you in this task there are two options – Report and Camera. Selecting Camera gives you the option of capturing a small area of the location pic as a "photograph" – a little square cursor flashes onto the screen, which you theN move to the desired subject before pressing the spacebar.

Selecting Report gives you the front page of a newspaper – blank – on which you can (in true desktop-publishing style) enter directly your news story and then select a photo to accompany it. By moving the cursor and the photos about the page you can actually design the front page of your local as you see fit. A very nice touch, thought the Pilg. You can even save or print it!

As far as the display goes, the graphics are attractive (if you've got a colour display – they look a bit muted on a green screen) and of course commands like "Move" make the central character walk (rather slowly and unevenly) off the screen and into the next location. Other characters occasionally come and go in a similar manner, and these can in some instances be communicated with using the "Say" command.

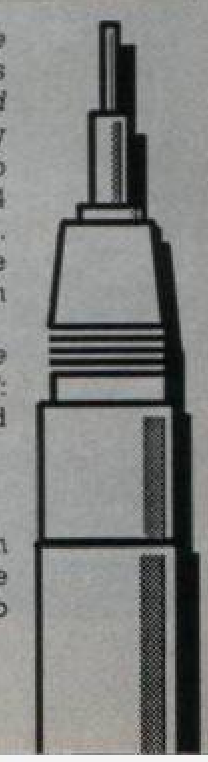
The problem with all these attempts to give us adventure game atmosphere and parsing with arcade visuals is that they are inevitably a compromise. *Redhawk* had an appalling parser, *Heavy on the Magick* very few commands (though it was one of the better attempts), and *Zim Sala Bim* the briefest of text responses. *Arkham Manor* suffers similarly – its textual responses are very short and hence have little power to conjure up vivid atmosphere or convey anything other than the barest of facts. The graphics are pretty, but the animation is very slow. The gameplay is promising, but (in the pre-production version at any rate) the pace of the game was extremely tedious since the program was trying to do so many things at once.

However, some these drawbacks may be overcome in the final production version – I do hope so because this game has some fresh ideas and, at the right price, could be most attractive.



Next month the Pilg plans a piece on recommended games, of particular interest to beginners. All will be graded for difficulty.

Pilgrim's postbag



First a letter from **Sandra Sharkey** of *Adventure Probe* magazine, whom I mentioned last month as spending 70 hours a week producing the mag *and* looking after five "Sharklets". Sandra, all I can say is that I thought I was overworked, but I have to take my hat off to you. And as for staying up till 4 in the morning (as she says in her letter), well... have you thought about doing a magazine about the Dawn Chorus? I trust that *Probe* continues to flourish and that it will long benefit from your dedication.

Those of you who would like a copy of *Probe* can get it from 78 Merton Road, Wigan, WN3 6AT: £1 per issue and definitely worth it for the dedicated adventurer.

Picture the Pilg...

Lisa Monteiro of Southampton writes in this month with another (extremely insulting) picture of the Pilg. I'm sorry, Lisa, but – to start with, I simply do *not* wear camel-dung deodorant. And I do *not* shave between my toes. As for the bags under the eyes, well, to say (as you do) that they are "handy for doing the shopping" is really too much! There simply wouldn't be room: I use them to keep my sandwiches in.

However, Lisa's picture does raise a point worth mentioning. The Pilg (despite the threat to his ego) would happily print it and others, but the printing process we use cannot cope easily with pencil drawings. If you want a drawing published, the best medium is black ink – a Rotring pen, for example – and you should avoid halftones wherever possible. I look forward to receiving further artistic contributions from readers in the near future.

Beginners unlucky...

Peter Golding has written in telling me of his problems with game-playing – he and his family have just purchased a 6128 and are stuck on almost every game they try!

"Are we missing something obvious?" he cries in despair. "Is there some simple skill or method which the novice game-player should have that we have somehow missed? Is it possible we have faulty disk drive – such things do happen – but I very strongly doubt temperamentally, or intellectually incapable of playing computer games? Can you recommend any adventure games that are genuinely suitable for the novice but interesting enough to be worth the trouble?".

This is a perennial cry from newcomers to the world of adventuring. The answer, Peter, is that (1) Yes, you may have a faulty disc drive – such things do happen – but I very strongly doubt that this is the case; (2) The only skill worth anything in playing computer games is experience; (3) Yes, *everybody* is temperamentally, physiologically, and intellectually incapable of playing *some* computer games – but there are so many different sorts of games that there's bound to be one that suits you somewhere – you just have to find it.

Adventures are a tricky breed to recommend. The fact is that many of them are of extremely poor quality and should really be

considered as puzzles rather than games. Also, there are certain conventions in playing adventures (typing INVENTORY, for example, to find out what you're carrying) that aren't always immediately clear to the newcomer.

However, as I've said before, the thing to do is to start with the best – and if you don't enjoy it then the chances are that adventures aren't for you! What you really need is a complete introductory guide to adventure buying – and if you look elsewhere on these pages, you'll see that that is exactly what the Pilg has planned for the next issue – stay tuned!

Penpal wanted...

"Are there any penpals out there who are interested in adventures and adventure writing with *The Quill* (male or female). I am six feet tall, have blond hair, deep brown eyes, and a rather muscular body – you know, the average 16-year-old. That latter bit was for the females, by the way."

That from **A Hopkins** of Merthyr Tydfil. Unfortunately, his address was illegible... but perhaps that was a good thing! Meanwhile, the Pilg still can't quite work out what blond hair, deep brown eyes, and a rather muscular body have to do with adventures.

I was also not aware that one could get a male or female *Quill* – I've inspected my own copy most carefully but can see no obvious signs of sex. This whole question of software sexing is quite new to me, but on reflection it explains a lot. Leaving discs of different sex in the same box doubtless accounts for the number of nasty bugs they seem to develop. Meanwhile, I shall endeavour to keep my software firmly under control, and would be very interested to hear of readers' experiences on this subject...

■

Sniffling with the Pilg

This month we feature the first in a series of Clue Cauldrons on various games, in which we present a whole series of clues designed to get you through some sticky patches – this month it's the turn of *Hitchhiker*, with help from your bedroom right through to getting the Babelfish. And of course, there are the usual assorted snifflets of information for those in distress, all of which comes to you courtesy of **David Hall**, **Jazzy**, **Iain Purdie** and **Charlie Cant**.

Gremlins

You can drop Gizmo outside – he will follow you.
Hand appearing from mailbox? Mail a lit flashlight.

Kobyashi Naru

Understanding... Jump hoverdroid, analyse perch and activate computer.
Wisdom... use solance, cut antennae.
Knowledge... analyse tree and plant, activate pod and then throw pod maw.

Snowball

Coffin code for crew member is black orange brown. Code for Habidome is brown purple yellow. At the start of the game: Pull lever, Climb out of coffin, Open door, S... then continue until either you reach the lift or hear a Nightingale. On hearing a Nightingale approaching, find a door to the north of the corridor and then: Open door, N, Wait until the Nightingale has moved away. On reaching the lift: Open door, Enter lift, Press black button, Climb out of lift. You are now on a circular walkway. Go east until you find a ladder. Climb this ladder and you are in the main ship. The rest is up to you!

Hitchiker's Guide to the Galaxy

Help with the major problems at the start of the game (including that dreaded Babelfish): Turn on the light at the beginning. Take the analgesic you'll find in your pocket, TAKE ALL (including junk mail). Outside STOP BULLDOZER and wait until Ford arrives and offers you the towel. Keep waiting until he comes back and you stand up. Get the towel and go to the pub – buy a cheese sandwich. Drink three pints of beer (only) and listen to the jukebox for a laugh. Go east and feed the dog; you can also attack Prosser at the house to pass the time. When Ford drops the device, get it and press the green button.

Inside the Vogon ship: examine the shadow, eat the peanuts, hang your gown on the hook, put the towel on the drain, put the satchel against the panel, put the junk mail on the satchel and then press the dispenser button. Press the button near the glass case, then hang around till the guards grab you...

Lords & Ladies of Adventure

Here's this month's list of brave and virtuous souls who have taken it upon themselves to offer their services to other, less fortunate, adventurers. In doing so, they run the risk of making friends around the world, achieving immortality and making their friends green with envy. So if you've completed a game and are willing to help others, drop the Pilg a line.

Participation in this column is an honour but remember it also involves actually helping others – Lords and Ladies who do not do their job properly come in for some fierce criticism and will certainly be in for a pasting from the Pilg. Think twice before writing... but you will find that, if included, your life will be the richer for it.

Just one point here – some Lords and Ladies occasionally send in "updates" to their lists. Because of the way this system works, if you wish to make a re-entry in the column (which changes every month) you must submit a complete reapplication. Please remember this or risk disappointment.

Hitchhiker, Spellbreaker
Charlie Cant, 95 Bouverie Road West, Folkestone, Kent, CT20 2LB
☎ **(0303) 53268** on a SUNDAY ONLY please.

Message from Andromeda, Forest at the World's End, Heroes of Karn, Jewels of Babylon
Derek Oliver, 11 King Edward Road, Ramsgate, Kent

Adventureland, Forest at the World's End, The Hobbit, Classic Adventure, Heroes of Karn, Jewels of Babylon, Message from Andromeda, Mordon's Quest, Red Moon, Sphynx, Warlord, Never-ending Story, Fantasia Diamond, Spellbound, Seabase Delta, Dun Daragh, Marsport, Sorcery, Devil's Crown, Worm in Paradise, Souls of Darkon, Emerald Isle, Return to Eden, Wild Bunch
Tim, Thanescroft Cottage, Lords Hill, Shamley Green, Guildford, Surrey, GU5 0TJ

Red Moon, Worm in Paradise, Price of Magic, Heroes of Karn, Forest at the World's End, Jewels of Babylon, Message from Andromeda, Subsunk, Seabase Delta, The Experience, Spytrek, Imagination, Collossal Adventure, Adventure Quest, Dungeon Adventure, Monsters of Murdac, Kentilla
Bob Weeks, 9A Lydney Close, Paulsgrove, Portsmouth, PO6 3QG

Snowball, Spellbound, Mission 1, Project Volcano, Heroes of Karn, Forest at World's End, Message from Andromeda, Knight Tyme, Jewels of Babylon, The Boggit, Bored of the Rings (thanks to Joan Pancott), The Hobbit, and Trapdoor
Iain Purdie, 9 Glassford Road, Strathaven, Lanarkshire, ML10 6LL ☎ **(0357) 22663**

Forest at the World's End, The Hobbit, The Lord of the Rings, Warlord, Seabase Delta
Martin Empson, 24 Robin Hood Lane, Hall Green, Birmingham, B28 0LN

Dracula, The Boggit, After Shock, Warlord, Heroes of Karn, Jewels of Babylon, The Hobbit, Forest at the World's End, Adventure Quest, Colossal Adventure
John Vincent, 62 Hillside, Stowmarket, Suffolk, IP14 2BA

Heavy on the Magick, Dun Darach, Tir-Na-Nog, Fairlight, Jewels of Darkness, Price of Magik, Red Moon
Irene Allen, 15 Seventh Avenue, Garston Park, Tilehurst, Reading, Berks

Emerald Isle, Return to Eden, Worm in Paradise, Price of Magik, Vera Cruz Affair, Questprobe III, Lord of the Rings, Hobbit, Boggit, Robin of Sherlock, Souls of Darkon, Aftershock, Warlord, Jewels of Babylon, Dracula, Terrormolinos, Mordon's Wuest, Classic Adventure, Mindshadow, Seabase Delta, Subsunk, Spy-Trek, Imagination, Necris Dome, Nythyhel, Theseus, Miami Vice, The Hermitage, Teacher Trouble, Knight Tyme, Spellbound, Kentilla, Swords and Sorcery, the Fourth Protocl, The Mural, Microman, Galaxias, Enchanter
Tyron Austin, 13 Warner Place, Llanelli, Dyfed, SA15 3NW

Enchanter, Mordon's Quest, Forest At World's End, Jewels of Babylon, Heroes of Karn, Message from Andromeda, Warlord, Worm in Paradise, Red Moon, Marsport, Dun Daragh, Adventureland, Classic Adventure, The Hobbit, Sphynx Adventure, Neverending Story, Souls of Darkon, Robin of Sherwood, Fantasia Diamond, Spellbound, Knight Tyme, Seabase Delta, Emerald Isle, Return to Eden, The Boggit, Bugsy, Wild Bunch
Tim Gurney, Thanescroft Cottage, Lords Hill Shamley Green, Guildford, Surrey, GU5 0TJ

Contacting the Pilg...

Write Pilg c/o ***Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ**. Or if you have a modem you can get through on Telecom Gold **83: JNL251**. The Pilg positively glories in correspondence, and those who get in touch stand an excellent chance of seeing their name (and even their deathless prose) on these pages.

Please remember, however, that the Pilg himself is *not* a helpline service. That's the job of the Lords and Ladies, and if you write to the Pilg I'm afraid you risk disappointment as well as wasting a stamp. Much as I would love to communicate with everyone on a personal basis, the volume of mail and the laws of time and space to which I am subject make this quite impossible!

Programming with the Pilg...

The Pilg's programming series takes a break this month due to lack of space... Never fear, we shall return next month with a vengeance – and some exercise for your fingers as we embark on the first of the listings.

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Access



CHEAT MODE

A Mastertronic money-minimal Method 1 poke is up for grabs. **Steve Hooper** of Wyrley, Walsall, is the man to blame. Infinite lives, infinite energy and no more crunching crushers.

```
1 ' Terminus -- tape
2 ' by Steve Hooper
3 ' Amstrad Action   July 87
10 MEMORY 4863: MODE 0
20 INK 0,0: INK 1,0
30 BORDER 0: FOR a=0 TO 3
40 READ b,c: OUT &BC00,b
50 OUT &BD00,c: NEXT a
60 FOR a=0 TO 150: NEXT
70 PRINT"Please wait"
80 INK 1,26: LOAD"!bot"
90 LOAD"!": LOAD"!",4864
100 POKE 8354,0: POKE 10555,0
110 POKE 17347,&C9: CALL 4864
120 DATA 1,32,2,42,6,1,7,6
```

Thrust II

The Mapperley man alias **Phil** "remember Thrust I" **Howard** has poked Firebird's follow-up. This poke is very similar to the poke he created for the original *Thrust*: press the Control key and the ship stops dead in its tracks. Phil has been improving his techniques somewhat. Not only does your ship halt, but so does the ball. Method 1.

```
1 ' Thrust II -- tape
2 ' by Phil Howard
3 ' Amstrad Action   July 87
10 DATA 21,38,bd,36,1b,21
20 DATA bc,bc,36,c3,23,36
30 DATA 16,23,36,be,c3,00
40 DATA a3,cf,88,88,21,2d
50 DATA 29,36,17,21,27,be
60 DATA 22,35,29,cd,13,be
70 DATA c3,28,23,21,00,00
80 DATA 22,48,69,22,4a,69
90 DATA 22,4c,69,c3,6a,27
100 y=0: MEMORY &5000
110 FOR x=&BE00 TO &BE35
120 READ a$: a=VAL("&"+a$)
130 POKE x,a: y=y+a: NEXT
140 IF y<>&11AE THEN 170
150 LOAD"thrust",&A300
160 CALL &BE00
170 PRINT"Data error"
```

Dick'n'Bob check out your tips, pokes and game-busting ploys. The best ones could win an entire issue's *Amstrad Action* Raves! So why not send *your* latest gem for the *AA* team to test? Send to: Cheat Mode, *Amstrad Action*, Bath, BA1 1EJ.

Poke methods for tape

Here is how to input the majority of Cheat Mode tape pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, first type `|tape`.

Method 1

Rewind the game tape to the beginning. Now type in the poke listing. Then type `RUN` and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working.) Press the Play key on the cassette deck, then any key on the main keyboard – the spacebar will do nicely. The tape should now start to play through in the normal way.

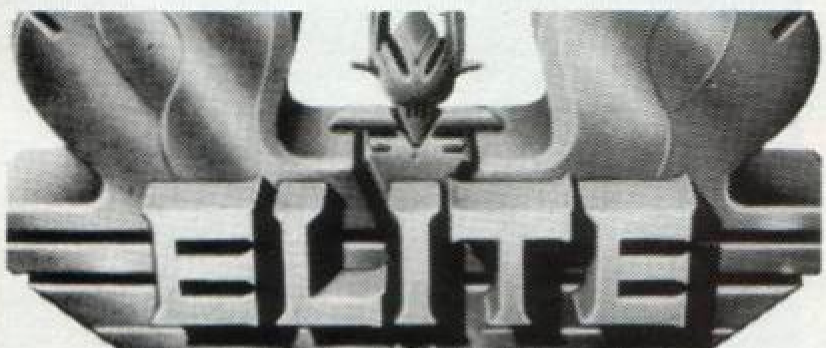
Method 2

For this method you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type `CAT` and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

Soon you'll get the message `Found *something* block 1`. It doesn't matter what the *something* actually is; this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the `Found` message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type `RUN` and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.



In *AA* 20 we had a comprehensive set of pokes for the disk version of *Elite*. It was such a full set of pokes that we thought there was nothing else you could do to it. **Stephen Basford** of Crewe has proved us wrong. Add these two pokes as lines 151 (instant hyper space) and 152 (difficult game).

```
151 POKE &4C56,24
152 POKE &507F,0
```

Bruce Lee

Phil Howard has been attacking a few oldies. The first of the bunch is US Gold's beat-em-up. A Method 1 entry provides you with a lot of Lees.

```
1 ' Bruce Lee -- tape
2 ' by Phil Howard
3 ' Amstrad Action   July 87
10 DATA 21,e2,39,36,c3,23
20 DATA 36,16,23,36,be,21
30 DATA 40,00,e5,21,00,bb
40 DATA e5,c3,b7,39,e5,21
50 DATA 74,02,36,2c,23,36
60 DATA 85,e1,f1,f3,c9,21
70 DATA f1,65,36,a7,c3,00
80 DATA 58
90 y=0: MEMORY &2000
100 FOR x=&BE00 TO &BE2A
110 READ a$: a=VAL("&"+a$)
120 POKE x,a: y=y+a: NEXT
130 IF y<>&122E THEN 160
140 LOAD"bruce lee",&A300
150 CALL &BE00
160 PRINT"Data error"
```

Hunchback II

Another of **Phil Howard**'s pokes that provides you with infinite lives. Method 1 is the way.

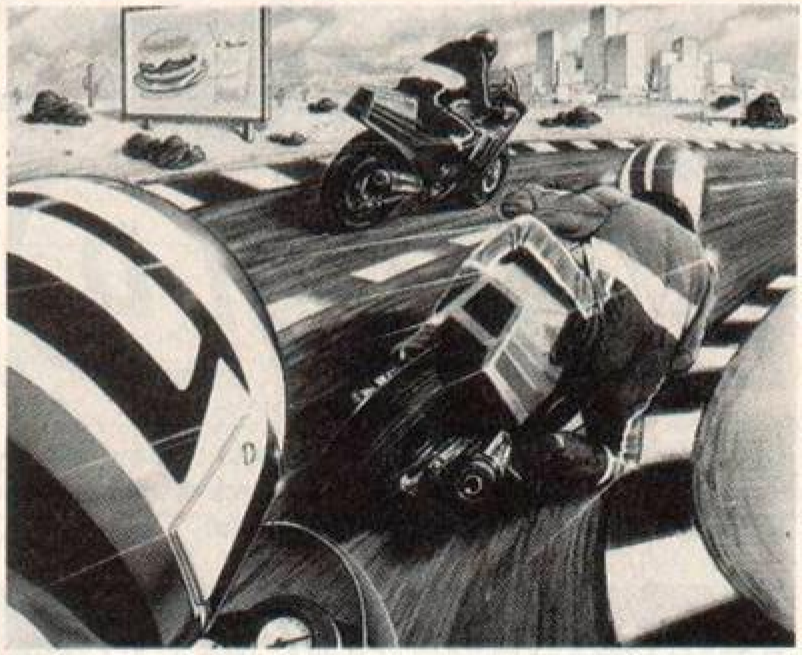
```
1 ' Hunchback II -- tape
2 ' by Phil Howard
3 ' Amstrad Action   July 87
10 DATA 21,e2,39,36,c3,23
20 DATA 36,16,23,36,be,21
30 DATA 40,00,e5,21,00,bb
40 DATA e5,c3,b7,39,e5,21
50 DATA 74,02,36,2c,23,36
60 DATA 85,e1,f1,f3,c9,21
70 DATA f6,84,36,a7,c3,68
80 DATA 42
90 y=0: MEMORY &2000
100 FOR x=&BE00 TO &BE2A
110 READ a$: a=VAL("&"+a$)
120 POKE x,a: y=y+a: NEXT
130 IF y<>&12A4 THEN 160
140 LOAD"hunchback II",&A300
150 CALL &BE00
160 PRINT"Data error"
```

Boulder Dash

Alte de Boer has been at it again. This time he has redesigned Rockford's playing ground. Cave A has been completely rearranged. It is like nothing you have seen before. You are given a long time to complete the cave. You'll need it. The cave is tough. Enter the poke using Method 1 and get Rockford digging.

```
1 ' Boulder Dash -- tape
2 ' by Alte de Boer
3 ' Amstrad Action   July 87
50 FOR a=&A100 TO &A119: READ a$
60 POKE a,VAL("&"+a$): NEXT
70 MEMORY &2FFF: LOAD "!",&3000
75 CALL &A100
80 a=&8ED0: b=6: c=0: GOSUB 170
90 a=&8F01: b=5: c=&5F: GOSUB 170
100 a=&8F06: b=5: c=0: GOSUB 170
110 a=&8F0F: b=3: c=0: GOSUB 170
120 POKE &8EFA,2: POKE &8EFB,4
130 c=0: FOR a=&8F13 TO &8F8A
140 READ a$: b=VAL("&"+a$): c=c+b
145 POKE a,b: NEXT
150 IF c<>&BFC THEN PRINT"Error
    in data. Please check.": END
160 MODE 1: CALL &A10C
170 FOR x=a TO a+b: POKE x,c
180 NEXT: RETURN
190 ' Loading/relocating data
200 '
210 DATA 21,00,30,11,25,70,3E
215 DATA 87,cd,a1,bc,c9,21,00
220 DATA 30,11,00,02,01,25,70
225 DATA ed,b0,c3,52,1f
230 '
240 ' Boulder Dash cave data
250 '
260 DATA 25,01,03,90,03,03,24
270 DATA 0C,10,43,03,10,24,02
280 DATA 40,26,12,24,06,48
290 DATA 03,12,0f,02,42,26,10
300 DATA 03,06,02,03,10,3A,01
310 DATA 16,50,01,14,04,02
320 DATA 82,11,13,04,04,30,04
330 DATA 27,16,10,26,13,46,25
340 DATA 13,03,04,50,24,15
350 DATA 05,06,14,22,16,14,26
360 DATA 14,01,25,14,06,24,14
370 DATA 40,17,15,05,02,40
380 DATA 1D,14,02,02,00,15,14
390 DATA 40,26,05,05,05,14,22
400 DATA 07,14,24,05,54,15
410 DATA 0B,07,07,48,08,0B,05
420 DATA 06,00,09,0a,40,12,0b
430 DATA 06,00,14,12,06,FF
```

SUPER CYCLE



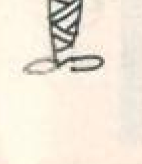
Another lengthy poke from RpM. This time it's for the disk version of US Gold's Epyx game. Data is not written to the disk so you can write-protect it if you wish. The poke gives you an infinite time to complete each course – you should be able to visit all the tracks with this one.

```
1 ' Super Cycle -- disk
2 ' by RpM
3 ' Amstrad Action   July 87
10 a=PEEK(&BE42): b=PEEK(&BE43)
15 c=256*b+a: FOR d=c TO c+24
20 POKE d,0: NEXT d: CAT
25 FOR t=&A000 TO &A153
30 READ a$: b=b+VAL("&"+a$)
35 POKE t,VAL("&"+a$): NEXT
40 IF b=34777 THEN CALL &A000
50 PRINT"ERROR IN DATA"
60 DATA AF,CD,0E,BC,F3,DD
70 DATA 21,33,A1,21,00,C0
80 DATA 22,A3,A0,3E,15,32
90 DATA E4,A0,3E,12,32,36
100 DATA A1,32,3C,A1,CD,78
110 DATA A0,DD,21,33,A1,21
120 DATA 40,00,22,A3,A0,3E
130 DATA 0A,32,36,A1,32,3C
140 DATA A1,3E,11,32,E4,A0
150 DATA CD,78,A0,21,40,00
160 DATA 11,00,80,3E,E5,AE
170 DATA 77,23,1B,7A,B3,3E
180 DATA E5,20,F6,3E,32,32
190 DATA CD,51,21,61,A0,11
200 DATA A1,52,01,17,00,ED
210 DATA B0,31,38,00,C3,8B
220 DATA 3E,20,44,49,53,4B
230 DATA 20,50,4F,4B,45,20
240 DATA 20,00,20,20,42,59
250 DATA 20,52,50,4D,20,20
260 DATA 3E,01,CD,1E,A1,01
270 DATA 7E,FB,11,30,A1,CD
280 DATA EC,A0,7E,87,20,F6
290 DATA 11,33,A1,CD,EC,A0
300 DATA CD,24,A1,CB,6E,28
310 DATA F9,3A,4B,A1,DD,BE
320 DATA 03,20,EB,11,39,A1
330 DATA 21,00,50,CD,EF,A0
340 DATA 21,F9,FF,19,7E,E6
350 DATA 38,20,08,23,7E,23
360 DATA B6,E6,7F,28,16,CD
370 DATA 24,A1,11,43,A1,CD
380 DATA EC,A0,CD,24,A1,CB
390 DATA 66,20,F0,CB,6E,28
400 DATA F5,18,8B,2A,A3,A0
410 DATA 11,00,10,19,22,A3
420 DATA A0,DD,34,03,DD,7E
430 DATA 03,32,3C,A1,3D,FE
440 DATA 00,38,A3,AF,CD,1E
450 DATA A1,C9,21,4A,A1,E5
460 DATA 1A,08,13,ED,78,87
470 DATA 30,FB,87,38,05,1A
480 DATA 0C,ED,79,0D,3E,06
490 DATA 3D,20,FD,08,3D,20
500 DATA E8,ED,78,CB,67,28
510 DATA 0C,FE,C0,38,F6,0C
520 DATA ED,78,77,23,0D,18
530 DATA EE,EB,E1,C9,01,7E
540 DATA FA,ED,79,C9,11,37
550 DATA A1,CD,EC,A0,CB,5E
560 DATA C8,F1,18,89,02,4A
570 DATA 00,03,0F,00,00,01
580 DATA 08,09,46,00,00,00
590 DATA 41,02,49,2A,FF,02
600 DATA 07,00,FF,FF,FF,FF
610 DATA 00,00,00,00,00,00
620 DATA 00,00,00,00
```

Oh Mummy

The old Amsoft classic that features on many Amstrad advertisments has finally been poked. **Owen Cunningham** has done the dirty and supplied you with infinite lives. Just type in the listing and follow the Method 1 guidelines.

```
1 ' Oh Mummy
2 ' by Owen Cunningham
3 ' Amstrad Action   June 87
10 MEMORY 15000
20 LOAD"mummy1",&6000
30 POKE &760E,0:CALL &6000
```



How to win an ENTIRE ISSUE's Rave software

All you have to do is produce an excellent map, poke or playing tips. The best solution will win a copy of every Rave and the Mastergame from the issue in which the solution is printed. The number of games will vary of course, but you can expect at least £50 worth of software and some months over £100. We also give out five runners-up prizes every month – the Mastergame or one of the Raves in that issue.

This month's winner in a close-fought contest is **Stephen Basford** for his *Doomsday Blues, Feud, Deep Strike, JSW, Manic Miner* and *Elite* pokes. Congratulations on getting the top spot after several runner-up awards.

The runners-up are **Alte de Boer** for his stylish *Boulderdash* and *Glider Rider* pokes, **Phil Howard** for *Thrust II, Bruce Lee, Hunchback II, Hive* and *Vampire* pokes, **Jan Mirko Maczewski** for *Glider Rider* and *Scooby Doo* pokes, and **Owen Cunningham** for *Oh Mummy, Project Future* and *Locomotion* pokes.

We do have quite a backlog of pokes and tips at the moment, not to mention more maps than we can handle. So if you're wondering why your current gem hasn't been in print yet, it's probably still in the pipeline. We do have limited space but we'll continue to bring you as much of what we receive as possible.

Where possible all pokes, tips and maps are checked to see that they work and that they're original. We cannot be liable for any mistakes or misprints.

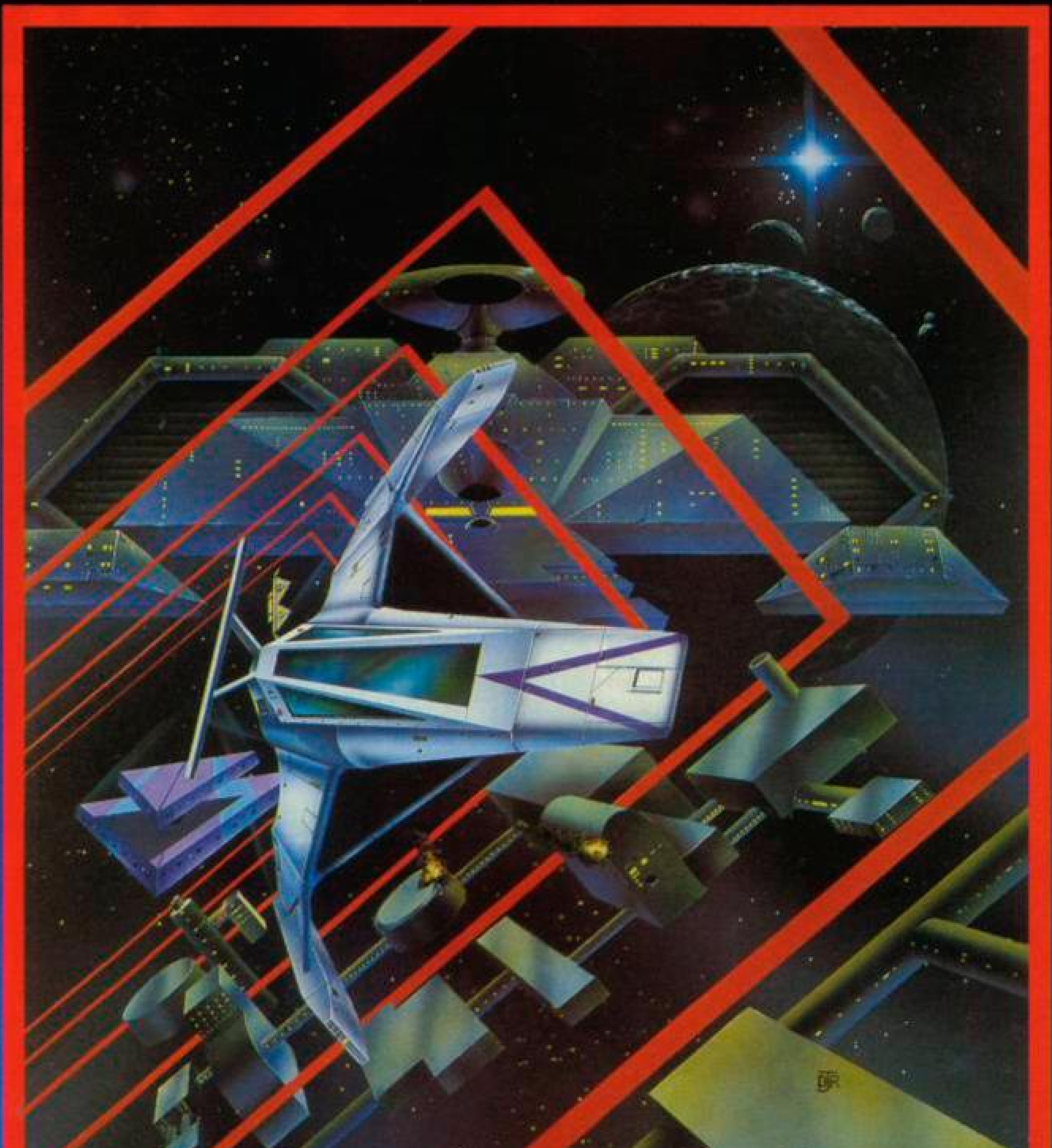
We cannot provide photocopies or printouts of pokes or tips through the post. We can't help you out with problems on games over the phone – what we get, we print.

VAMPIRE

Many lives are available for Codemasters' cheapie. Enter it using Method 1 and send your thanks to Mapperley.

```
1 ' Vampire -- tape
2 ' by Phil Howard
3 ' Amstrad Action   July 87
10 DATA 21,4f,bf,36,0b,23
20 DATA 36,be,c3,00,bf,21
30 DATA 5b,2d,36,34,c3,88
40 DATA 13,21,e2,39,36,c3
50 DATA 23,36,29,23,36,be
60 DATA 21,40,00,e5,21,00
70 DATA bb,e5,c3,b7,39,e5
80 DATA 21,91,01,36,d0,23
90 DATA 36,6f,23,36,cd,e1
100 DATA f1,f3,c9
110 y=0: MEMORY &2000
120 FOR x=&BE00 TO &BE38
130 READ a$: a=VAL("&"+a$)
140 POKE x,a: y=y+a: NEXT
150 IF y<>&171C THEN 170
160 LOAD"vampire": CALL &BE13
170 PRINT"Data error"
```

DEATHSCAPE



In the War Zones of Terra the fate of a world hangs in the balance. Your task is to navigate the multi-level grid, defending against the invading forces, whilst you attack the fortresses within the war zone on your search for the vital code necessary to breach the enemies' stronghold.

Fast . . . very fast Arcade Action to test the keenest of reflexes.

Strategy to test the finest of minds.

STARLIGHT SOFTWARE

Music by W.E. Music
Sound FX by Tony Crowther

Watch out for two great new releases from **STARLIGHT**. Greyfell and Dogfight 2187 coming to your local retailer on Spectrum, CBM and Amstrad.

C64/128 cass. £9.99 C64/128 disk £12.99 Amstrad cass. £8.99 Amstrad disk £14.99 Spectrum £8.99

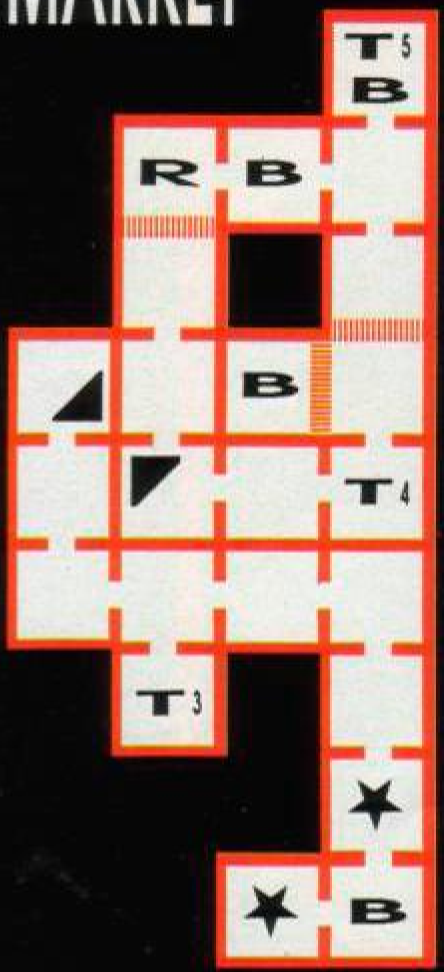
MAIL ORDER: If your dealer is miles away you can order from us – send your crossed cheque/P.O. made out to Ariolasoft U.K. Ltd., including your own name and address, to Ariolasoft, P.O. Box 461, London NW1 2ND

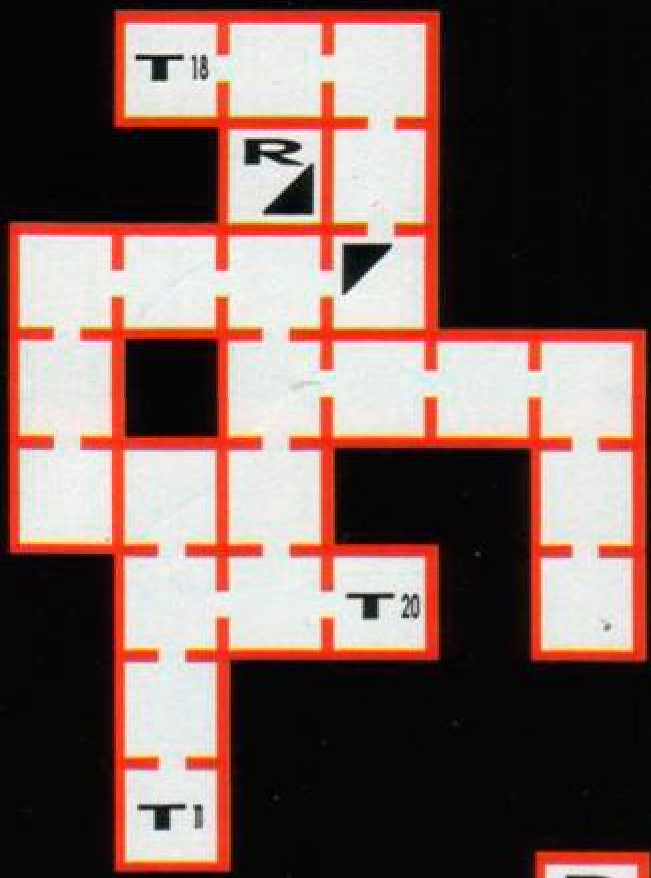
HEAD OVER HEELS GUIDE

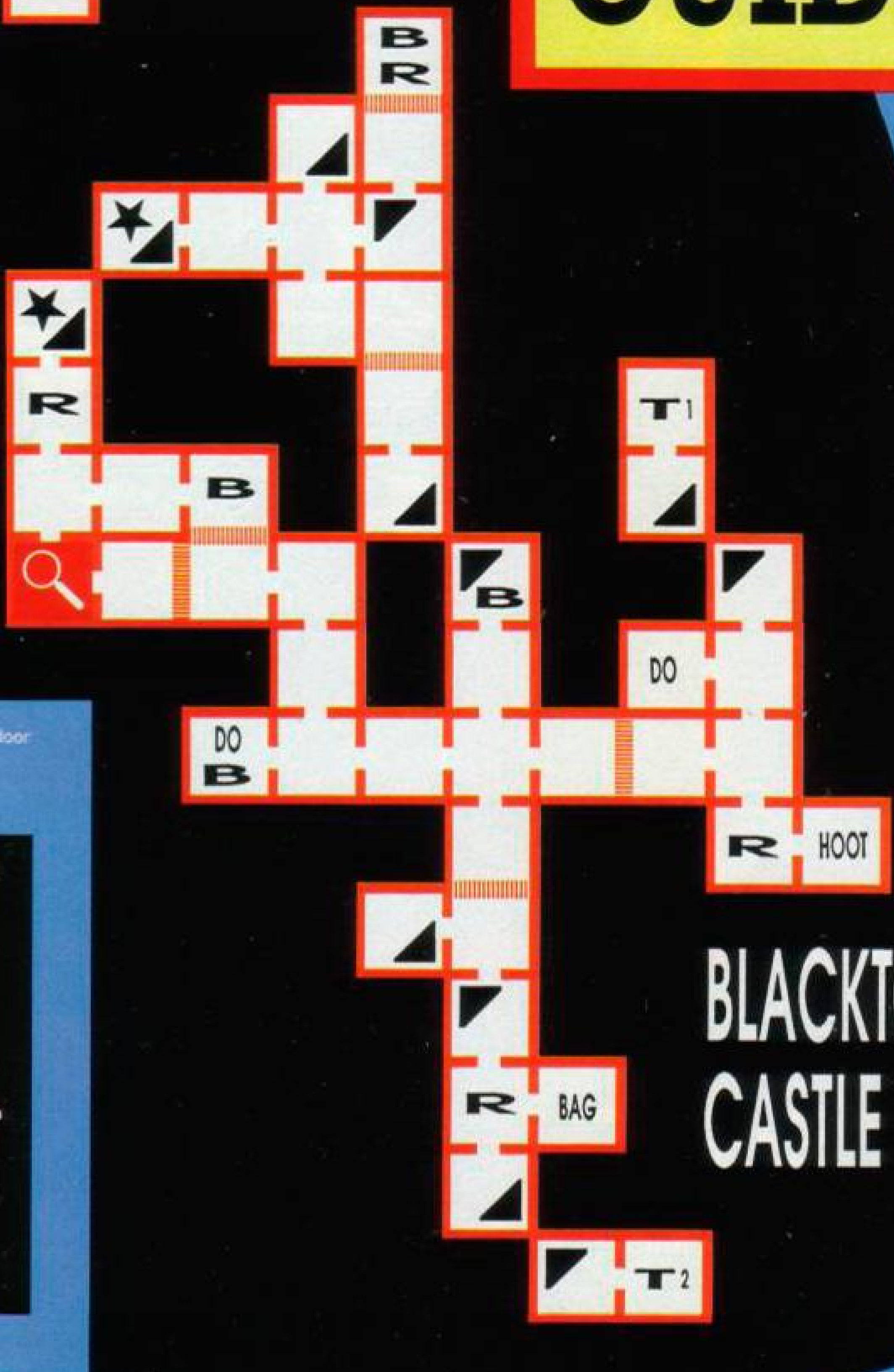
START



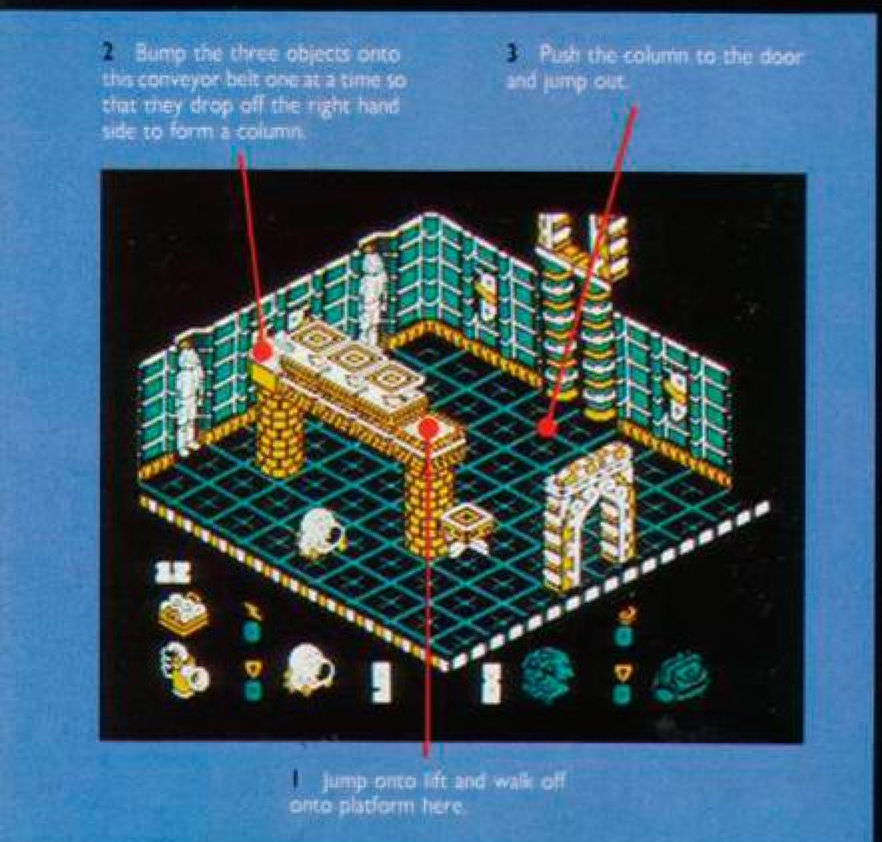
MARKET







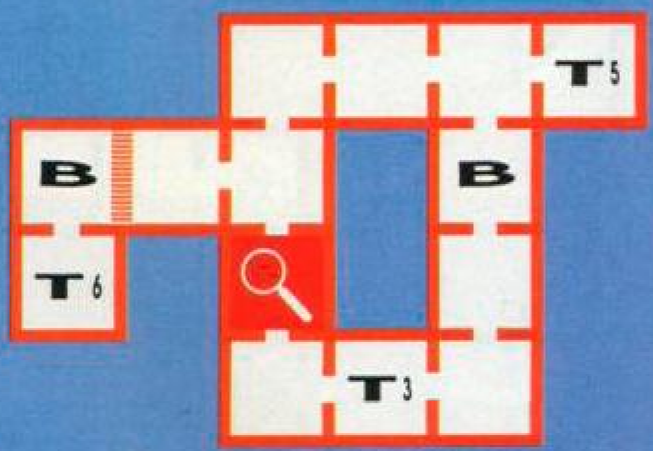
BLACKTOOTH CASTLE



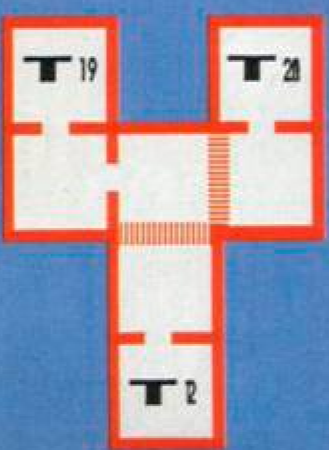


EGYPTUS

LUNAR.2

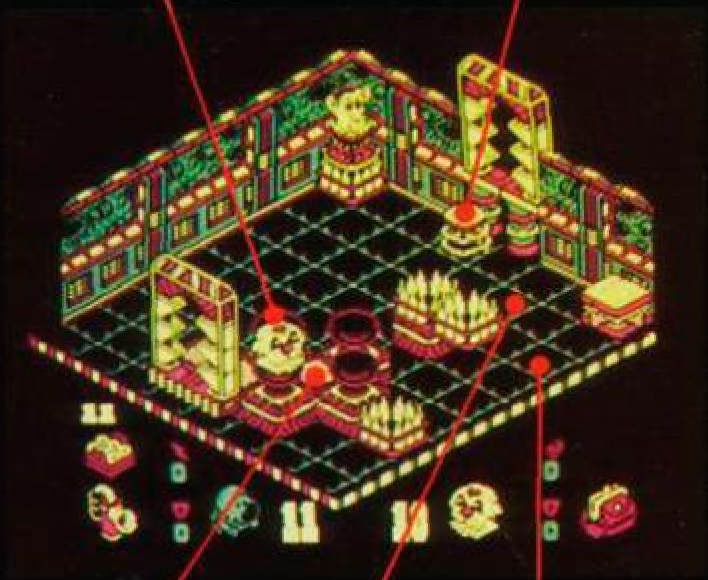


LUNAR.3



4 Jump on top of this knob and fall onto the sandwich as it goes by.

5 Jump onto the spring as you go past it and then out of the door.



1 Stand in middle of knobs and push them to control robot.

3 When the sandwich has hit the robot, move it to here and wait for the sandwich to hit it again.

2 Position robot here so that sandwich goes past it when travelling up the screen but hits it on the way down.

- EXAMINED.ROOM
- T TRANSPORTER
- B BUNNY
- LARGE.ROOM
- LIFTS
- LINK-UPS
- HOOT HOOTER
- DO DOUGHNUTS
- R ROBOT

3 Push the spring to the floor and float Head down.

6 Leave drum on the overhead walkway and float both characters down.

8 Put spring on top of drum and jump upwards off the spring and onto the screen above.



1 Move drum to here, jump duo on top.

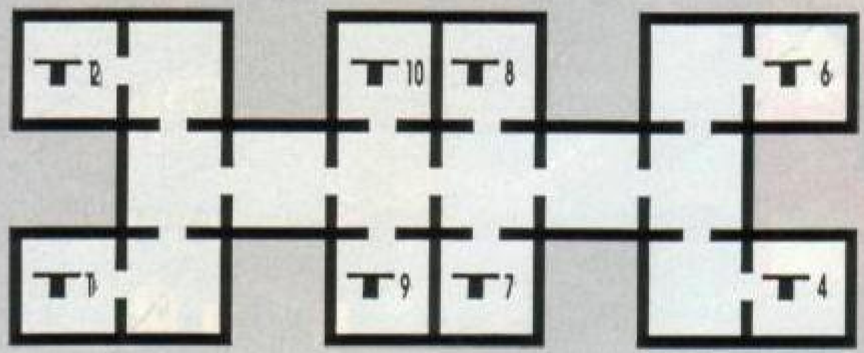
4 Re-form the duo and make a pile here: the spring underneath the drum underneath the duo.

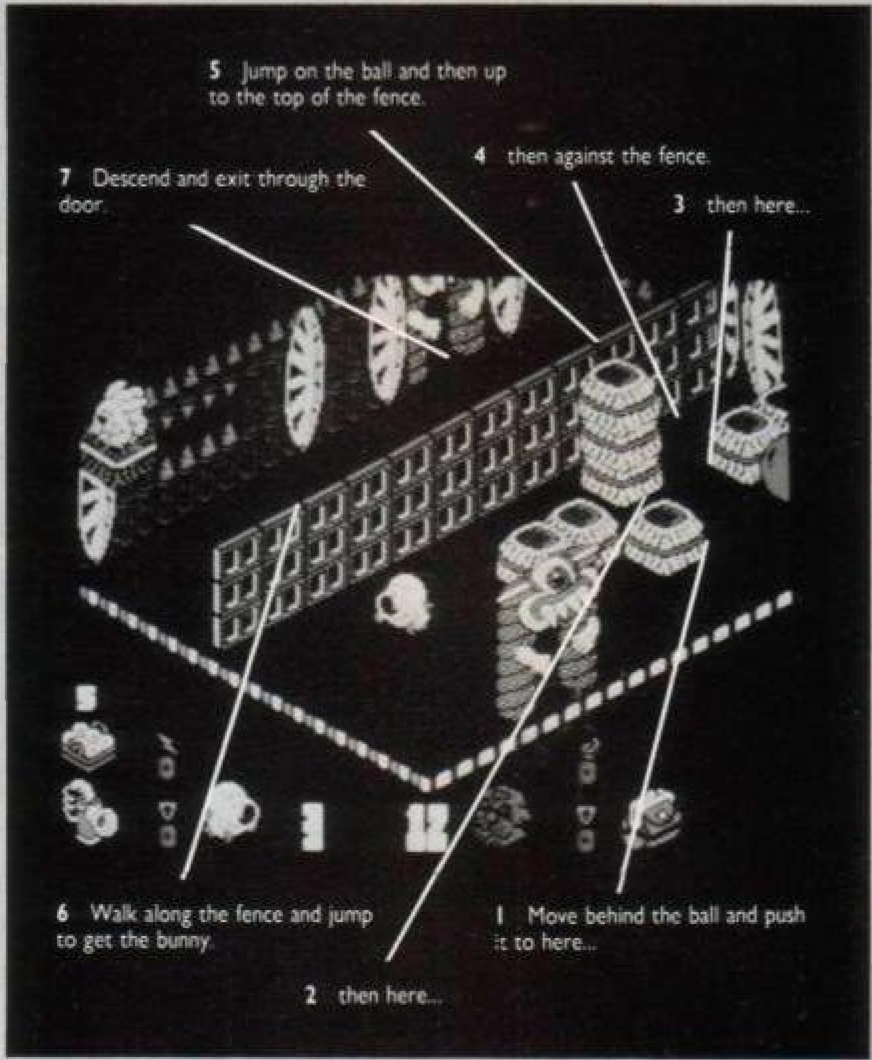
7 Jump up from the spring, this time taking it with you.

2 Disconnect Head and jump him to hefe, avoiding the block on the right.

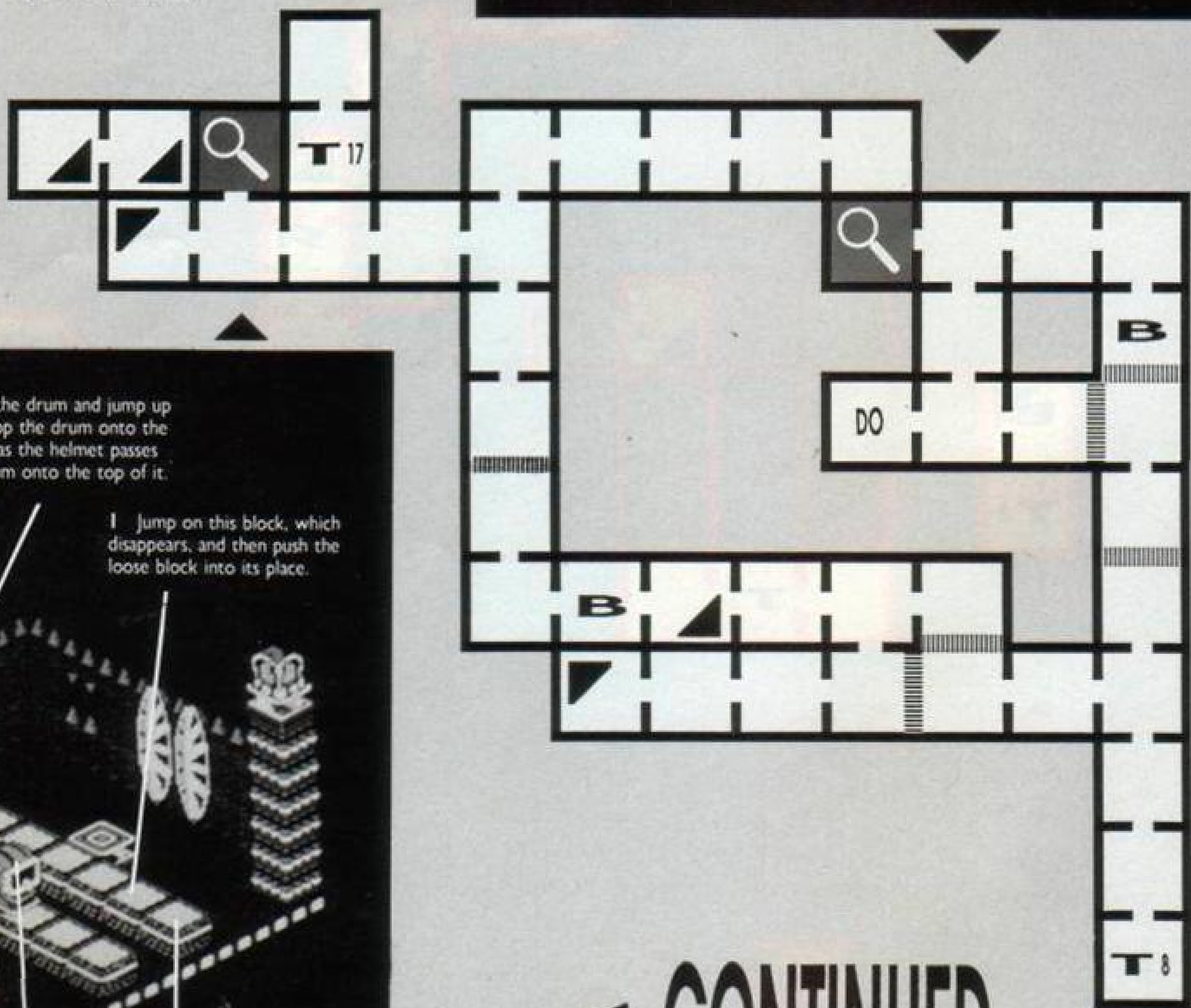
5 Jump up to here, taking the drum with you.

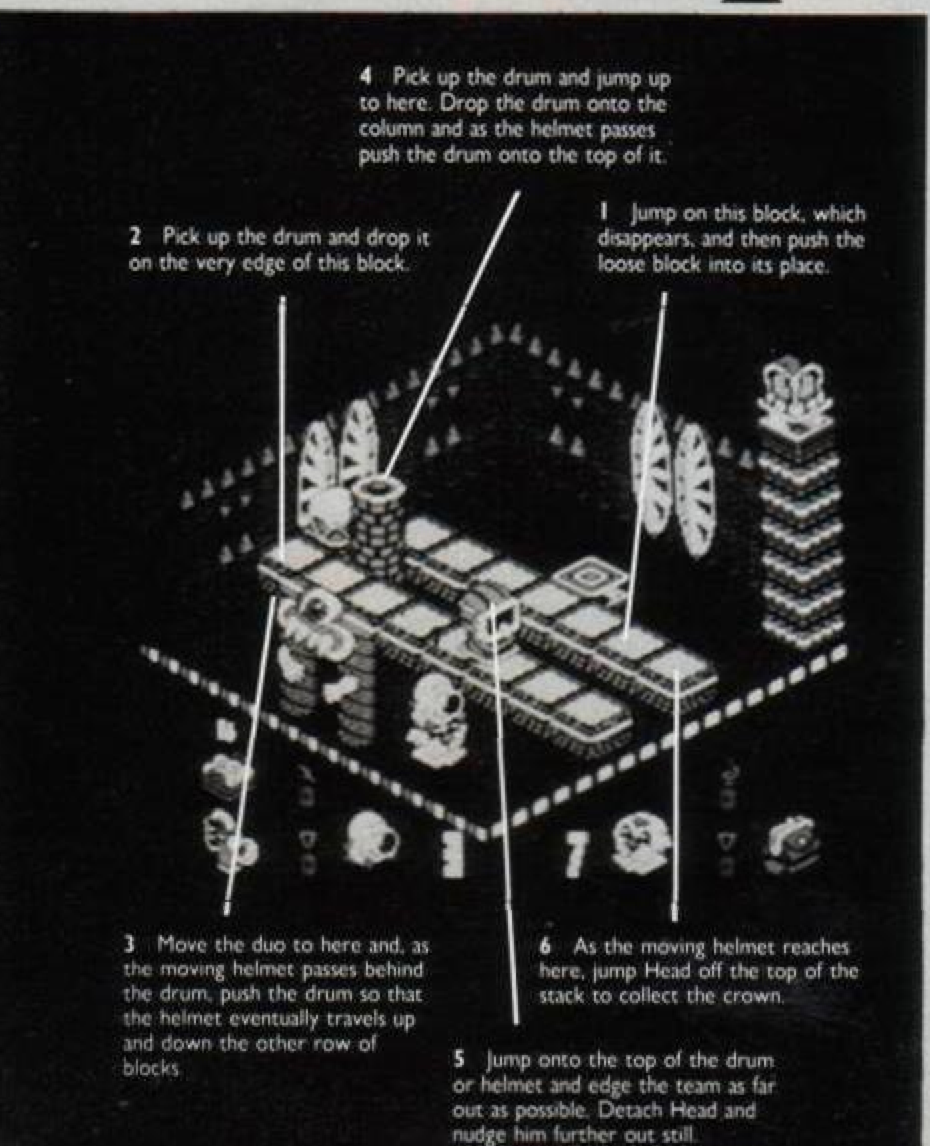
LUNAR.1





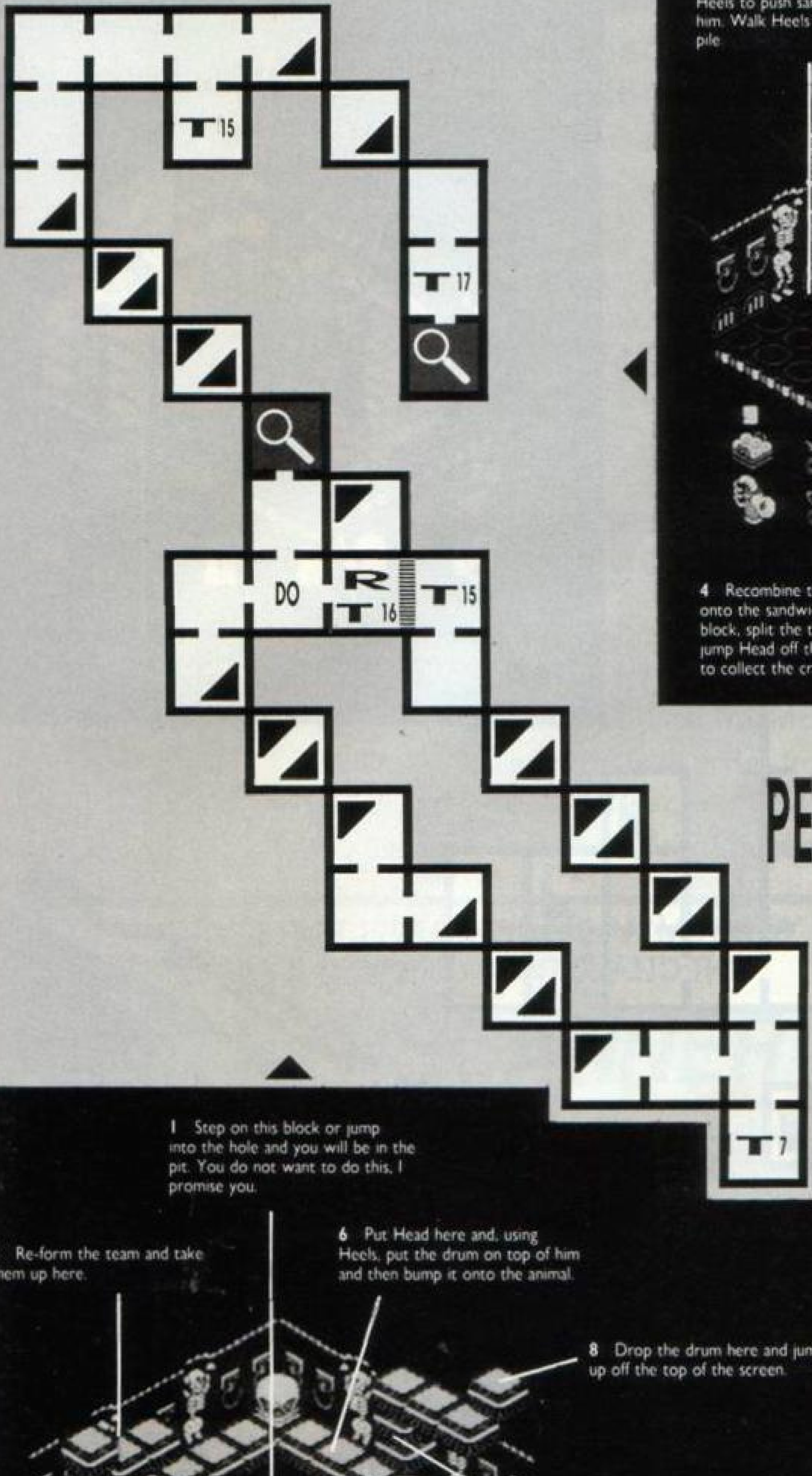
SAFARI

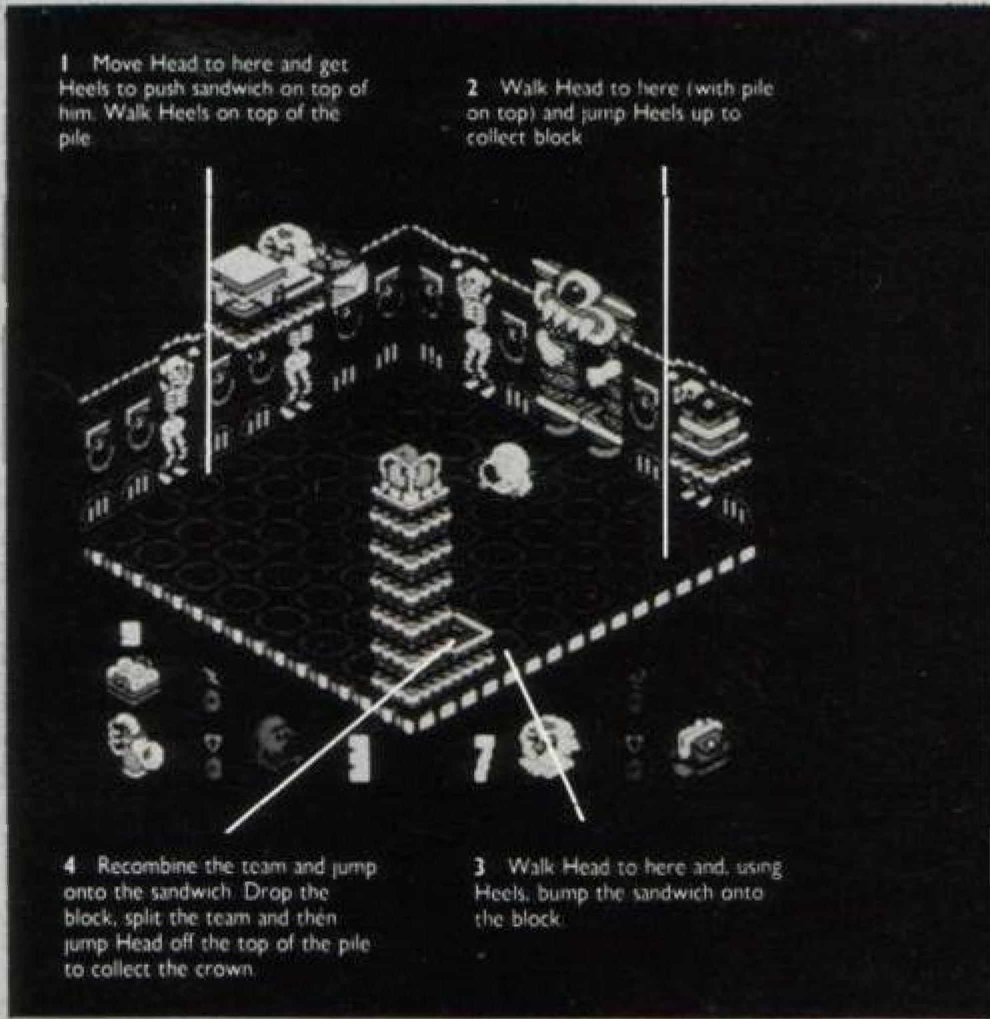




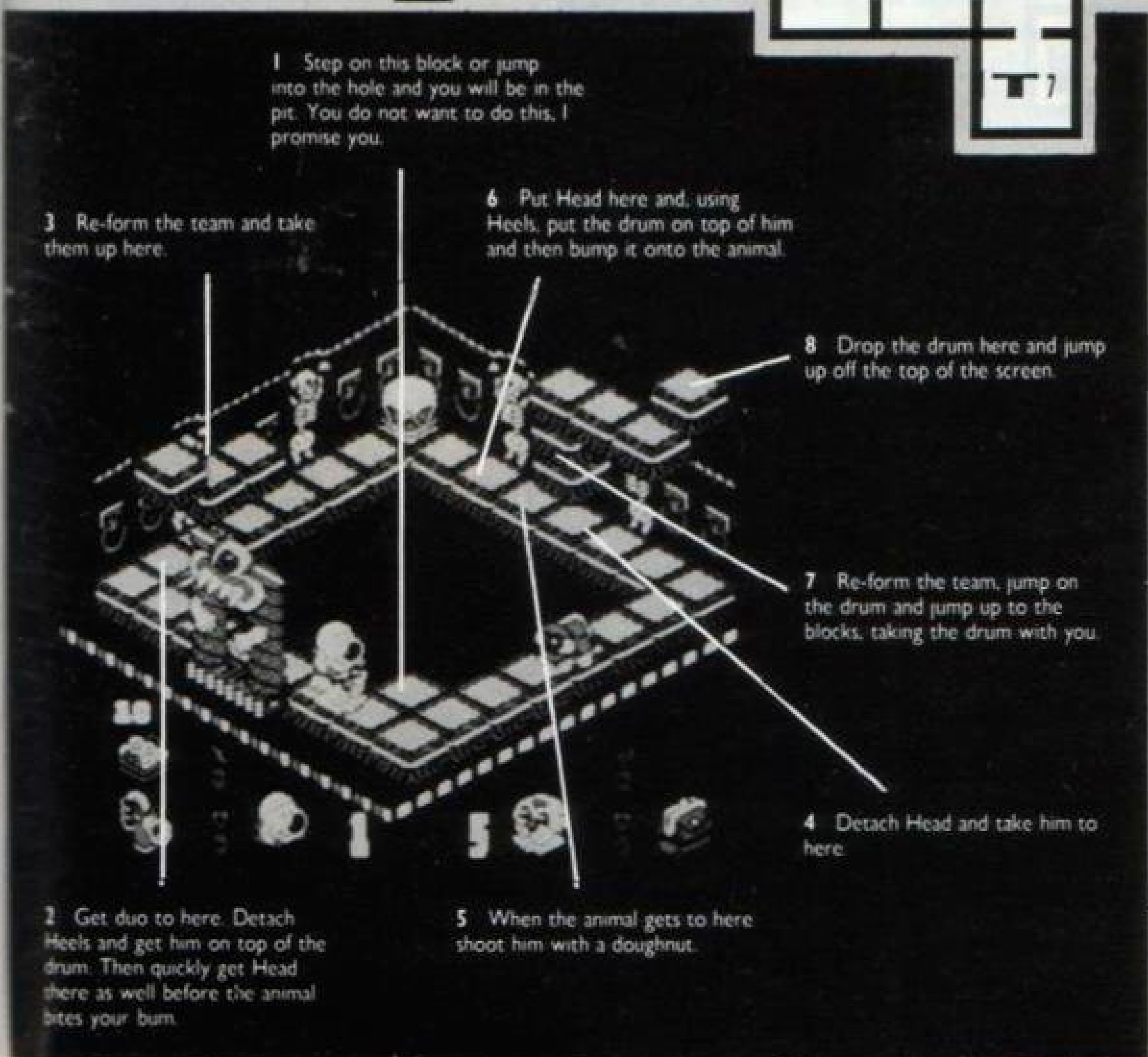
◄ CONTINUED

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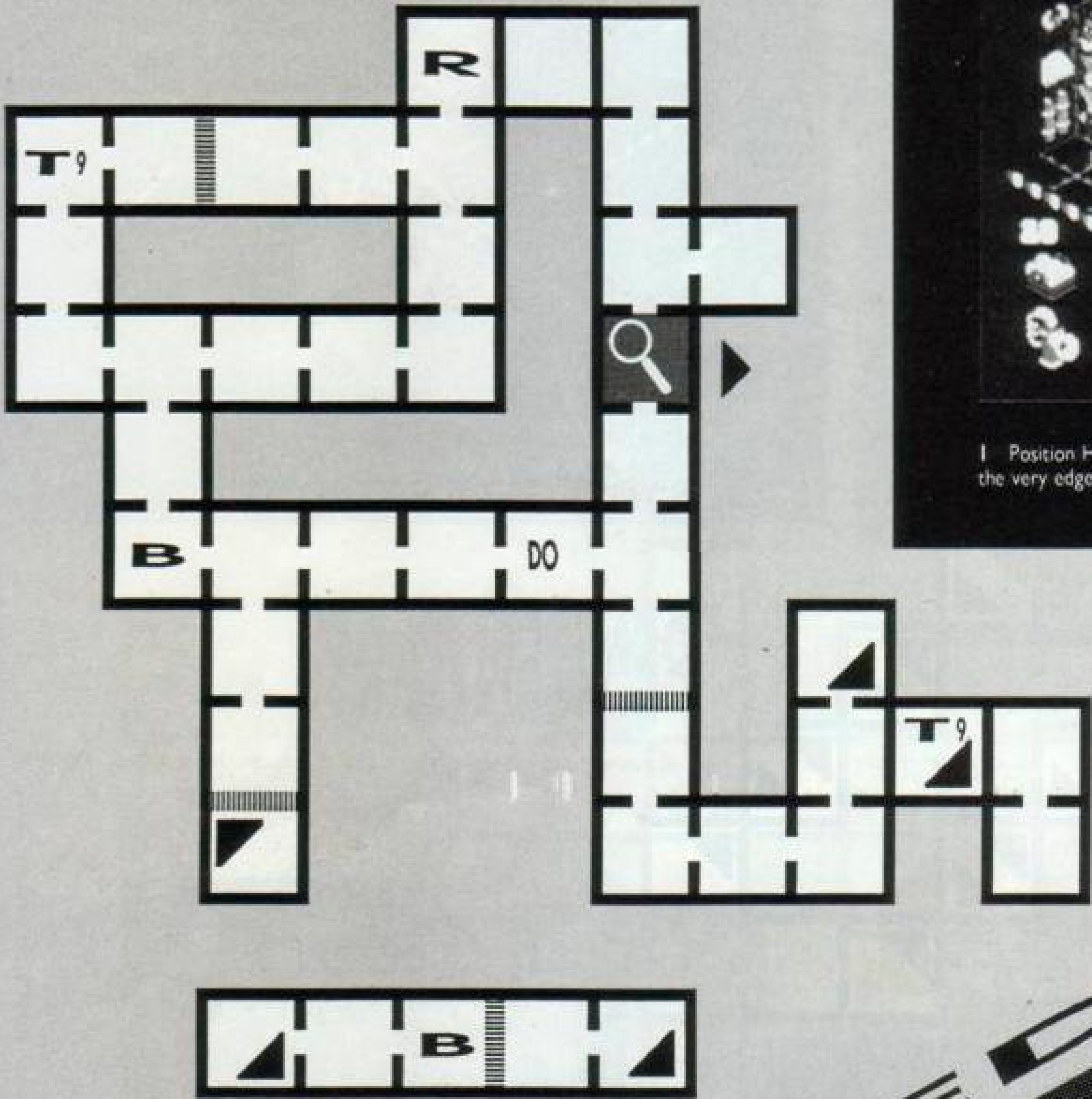
PENITENTIARY

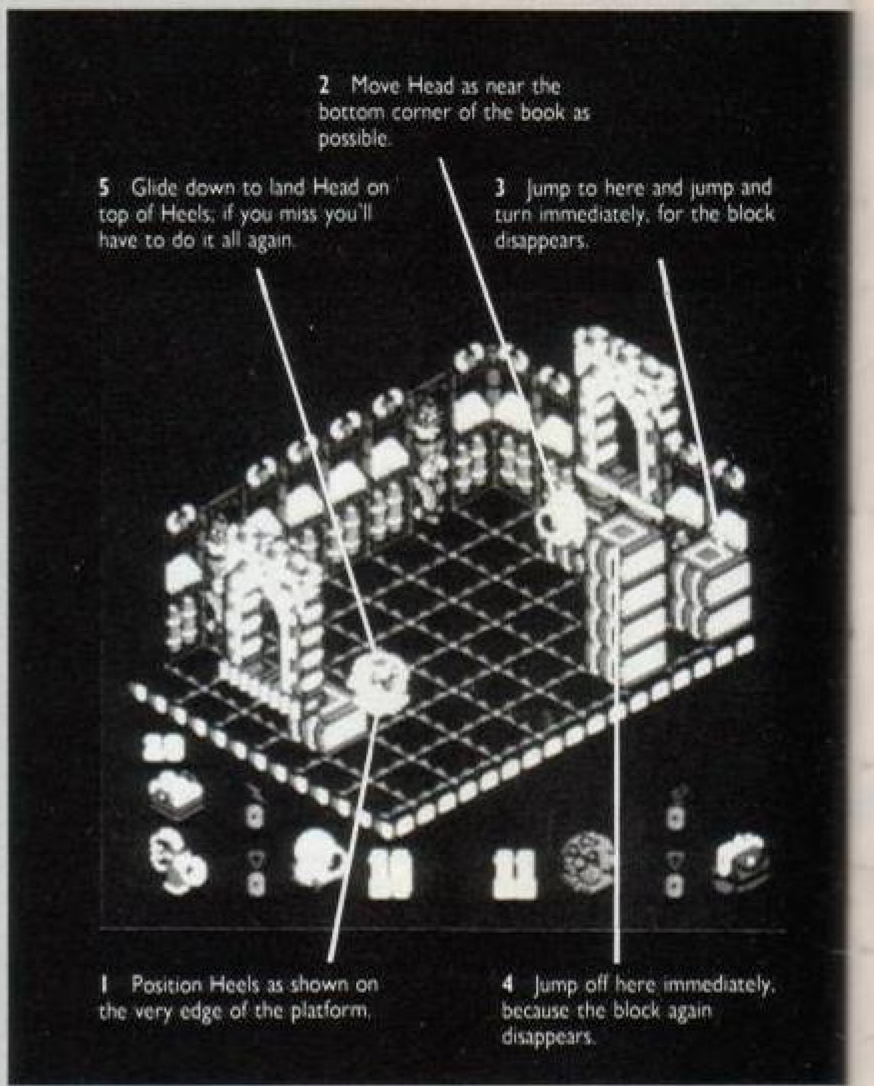


HEAD OVER HEELS GUIDE

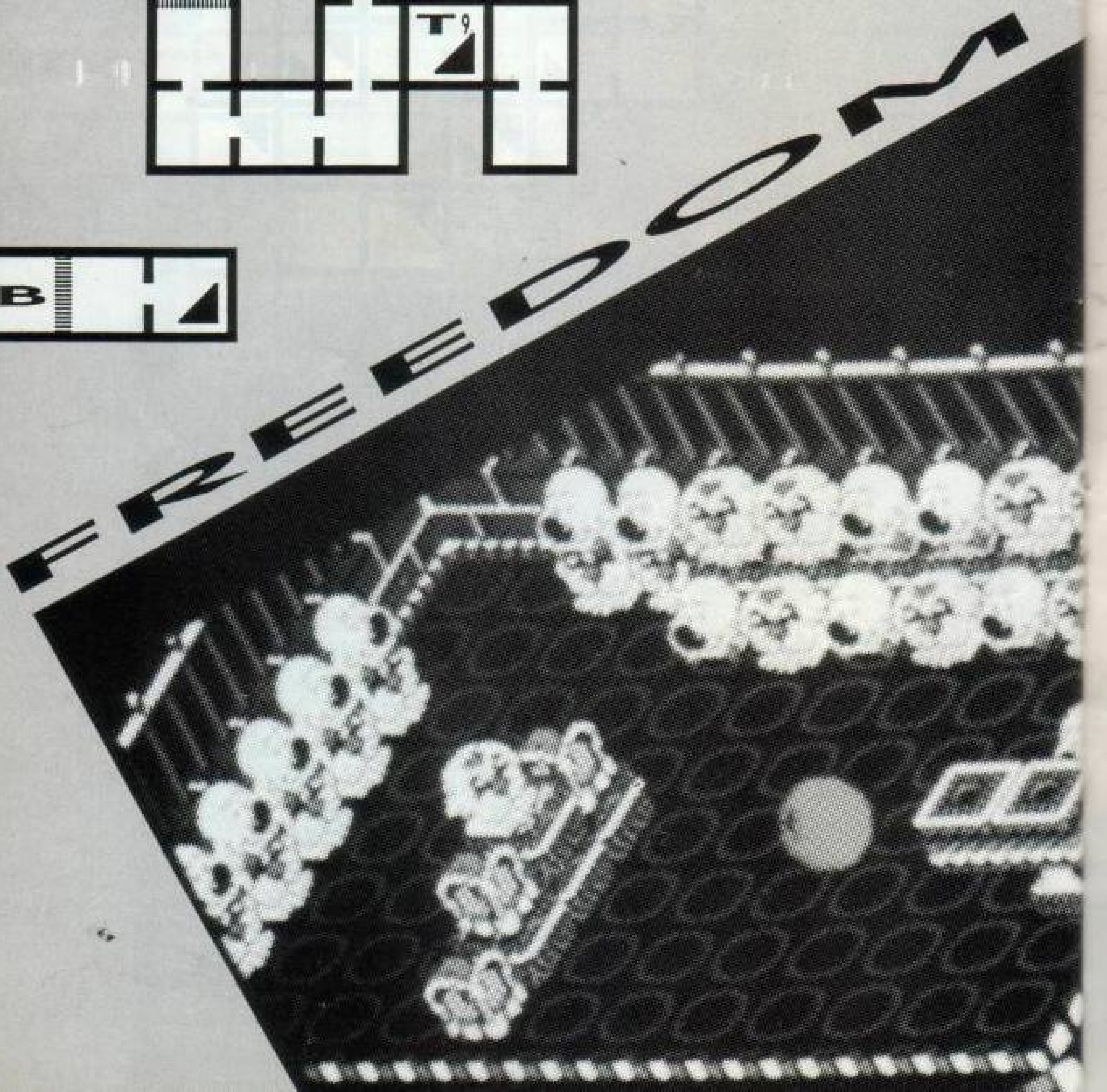
- EXAMINED ROOM
- T TRANSPORTER
- B BUNNY
- LARGE.ROOM
- LIFTS
- LINK-UPS
- HOOT HOOTER
- DO DOUGHNUTS
- R ROBOT

BOOK WORLD





- EXAMINED.ROOM
- T TRANSPORTER
- B BUNNY
- LARGE.ROOM
- LIFTS
- LINK-UPS
- HOOT HOOTER
- DO DOUGHNUTS
- R ROBOT



Head Over Heels

The pokes you have been waiting for. **Tony Hoyle** of Lancashire has kindly supplied cassette pokes for this fantastic Mastergame. If you own the disk version of Ocean's game then you can thank **RpM**, *AA*'s technical editor.

Tape

The man from St Annes, apart from saying yeah, has worked hard to give you infinite everything. There should be no excuse for not completing the game now. Use Method 1. You will find when you run the poke that the horn, bag and doughnuts are already in your possession.

Tony has fixed it so you have 255 of everything. You'll be treated to an odd display – all the counters will show ";;" – but don't worry, it's *HOH*'s way of showing 255. As if that weren't enough to be going on with, the poke activates all the bonuses permanently. This means you'll be able to jump further, go faster and be invulnerable.

```
1 ' Head Over Heels -- tape
2 ' by Tony Hoyle
3 ' Amstrad Action   July 87
30 MEMORY &39AE
40 x=&BE80
50 READ a$
60 WHILE a$<>"xx"
70 POKE x,VAL("&"+a$)
80 x=x+1
90 READ a$
100 WEND
110 LOAD"",&39AF
120 CALL &3A6A
130 LOAD"!",&4000
140 CALL &BE80
160 DATA f3,21,00,40
170 DATA 11,00,bb,01
180 DATA f6,01,3e,8d
190 DATA cd,df,be,21
200 DATA 46,bb,11,46
210 DATA bb,01,b0,01
220 DATA 3e,c4,cd,df
230 DATA be,21,00,01
240 DATA 22,d6,bc,21
250 DATA 00,9f,22,d9
260 DATA bc,21,00,a0
270 DATA 22,e0,bc,21
280 DATA c0,0d,22,e3
290 DATA bc,21,00,00
300 DATA 22,4c,bc,21
310 DATA c4,be,22,f4
320 DATA bc,c3,c0,bc
330 DATA 21,72,24,11
340 DATA 73,24,01,08
350 DATA 00,36,FF,ED
360 DATA B0,21,FD,BE
370 DATA 11,6E,41,01
380 DATA 06,00,ED,B0
390 DATA C3,00,01,32
400 DATA FC,BE,7E,E5
410 DATA 21,FC,BE,AE
420 DATA E1,12,23,13
430 DATA 0B,3A,FC,BE
440 DATA C6,0A,CB,FF
450 DATA 32,FC,BE,78
460 DATA B1,20,E7,C9
470 DATA 00,3E,FF,77
480 DATA F6,FF,C9,xx
```

Disk

Protection systems are getting trickier, which means the length of poke-listings is inevitably going to increase. Still, this poke from RpM gives you all you'll need to complete Ocean's blockbuster.

You can write-protect the disk; the poke doesn't write to it. It does, though, give 255 of everything, invulnerability, super-jump and faster movement. You'll also have in your mitts the horn, bag and doughnuts.

```
1 ' Head Over Heels -- disk
2 ' by RpM
3 ' Amstrad Acfion    July 87
10 a=PEEK(&BE42): b=PEEK(&BE43)
20 c=256*b+a: FOR d=c TO c+24
30 POKE d,0: NEXT d: CAT
40 FOR t=&BE80 TO &BF40
50 READ a$: e=e+VAL("&"+a$)
60 POKE t,VAL("&"+a$): NEXT
70 IF e=17454 THEN CALL &BE80
80 PRINT"ERROR IN DATA"
100 DATA 06,0C,21,29,BF,11
105 DATA 00,C0,CD,77,BC,21
110 DATA 00,01,CD,83,BC,CD
120 DATA 7A,BC,06,0C,21,35
130 DATA BF,11,00,C0,CD,77
140 DATA BC,21,00,C0,CD,83
150 DATA BC,CD,7A,BC,21,00
160 DATA 01,11,00,9F,3E,76
170 DATA AE,77,23,1B,7A,B3
180 DATA 3E,76,20,F6,CD,17
190 DATA BF,21,00,C0,11,00
200 DATA A0,01,C0,0D,ED,B0
210 DATA 21,72,24,11,73,24
220 DATA 01,08,00,36,FF,ED
230 DATA B0,21,11,BF,11,6E
240 DATA 41,01,06,00,ED,B0
250 DATA 11,89,33,21,0D,BF
260 DATA 01,04,00,ED,B0,11
270 DATA 93,33,21,08,BF,01
280 DATA 05,00,ED,B0,11,9E
290 DATA 33,21,04,BF,01,04
300 DATA 00,ED,B0,C3,00,01
310 DATA 20,20,42,59,20,20
320 DATA 52,50,4D,50,4F,4B
330 DATA 45,3E,FF,77,F6,FF
340 DATA C9,F3,AF,18,02,3E
350 DATA 28,CD,19,BD,01,01
360 DATA BC,ED,49,04,ED,79
370 DATA C9,41,48,45,41,44
380 DATA 31,20,20,2E,53,42
390 DATA 46,41,48,45,41,44
400 DATA 32,20,20,2E,42,49
410 DATA 4e
```

Manic Miner

Stephen Basford has been busy this month. Another of Software Projects' Willy games has hit the deck. The pokes are for the disk version of the Four-Pack compilation: infinite Willies and a never-decreasing air supply are up for grabs.

```
1 ' Manic Miner -- disk
2 ' by Steve Basford
3 ' Amstrad Action   July 87
10 OPENOUT"d": MEMORY 4079
20 LOAD"manic"
30 POKE &2D8D,2: 'No.Lives
40 POKE &2DA9,0: 'Inf.Lives
50 POKE &3777,201: 'Inf.Air
60 CALL 4080
```


SHOCKWAY RIDER

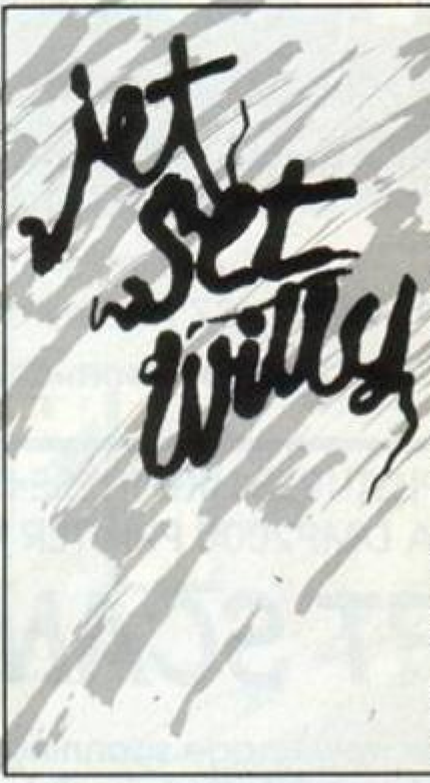
FTL's game has been given a good poking by **Tony Hoyle** of St Annes, Lancs, and RpM. Tony produced the cassette poke and RpM the disk version.

On tape (method 1) you can now go Full Circle without losing your head. Rails, street-punks, balls, bricks and even grannies are incapable of harming you.

```
1 ' Shockway Rider -- tape
2 ' by Tony Hoyle
3 ' Amstrad Action   July 87
10 OPENOUT"d"
20 MEMORY &7CF
30 LOAD"!"
40 POKE &868,&80
50 POKE &869,&BE
60 x=&BE80
70 READ a$
80 IF a$="xx" THEN CALL &700
90 POKE x,VAL("&"+a$)
100 x=x+1
110 GOTO 70
120 DATA af,32,d2,76,32,97
130 DATA 96,c3,a4,23,xx
```

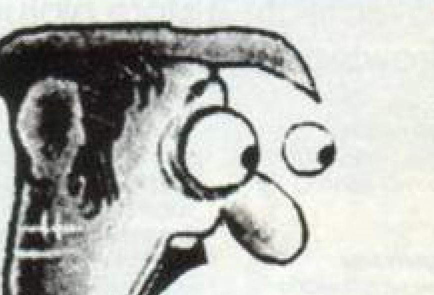
The disk poke for *Shockway Rider* makes you invulnerable. Type in the poke, run and go Full Circle.

```
1 ' Shockway Rider -- disk
2 ' by RpM
3 ' Amstrad Action   July 87
40 OPENOUT"d": MEMORY &7CF
50 LOAD"DISC.BIN"
60 POKE &88D,&CD: POKE &88E,0
70 POKE &88F,&BF
80 FOR t=&BF00 TO &BF07
90 READ a$: POKE t,VAL("&"+a$)
95 NEXT: CALL &700
100 DATA af,32,d2,76,32,97
110 DATA 96,c9
```



It's a long time since a poke for Software Projects' classic appeared. And never has a disk poke for this wonderful game alighted upon these pages. The Crewe hacker **Stephen Basford** has changed all that. You can choose the number of lives you desire by altering the value held in line 60. This poke is for the "Amstrad CPC Four-Pack" disk compilation and probably won't work on any other versions.

```
1 ' Jet-Set Willy -- disk
2 ' by Steve Basford
3 ' Amstrad Action   July 87
10 INPUT "Are you using a 464
   (Y/N): ",a$
20 MEMORY &1FFF
30 LOAD"jet2",&3100
40 LOAD"jet3",&7100
50 IF a$="n" THEN POKE &8D4E,&49:
   POKE &8D4F,&B6
60 POKE &81F0,7: ' No.of lives
70 POKE &82A8,0: ' Inf.live
80 RUN"jet1"
```



Feud

Here are another lot of pokes for Bulldog's epic wizard game. This bunch is from **Stephen Basford** of Crewe. A Method 1 entry gives you options for infinite energy (both wizards) and protection from the gardener, and it lets the wizards jump.

```
1 ' Feud -- tape
2 ' by Stephen Basford
3 ' Amstrad Action   July 87
10 INPUT "Gardener harmful (Y/N):",a$
20 INPUT "Inf.energy for BOTH
   (Y/N): ",b$
30 INPUT "Wizards jump (Y/N): ",c$
40 MEMORY &4FFF: LOAD"!feud"
50 POKE &5007,&24: POKE &5008,&5E
60 FOR c=&5E24 TO &5E35
70 READ d: POKE c,d
80 NEXT c
90 IF a$="n" THEN POKE &5E25,53
100 IF b$="n" THEN POKE &5E2A,53
110 IF c$="n" THEN POKE &5E2F,200
120 CALL &5000
130 DATA 62,0,50,205,31
140 DATA 62,0,50,98,14
150 DATA 62,0,50,93,14
160 DATA 195,0,4
```



 One, two, three, four...

Glider Rider

Alte de Boer from de Netherlands certainly knows how to pull a game to pieces. A couple of very classy pokes for Quicksilva's musical motorcycle and hang-glider destroy-the-plastic-island game. The pokes work on both cassette and disk versions.

The first poke removes those annoying laser turrets and replaces them with something much more useful: bombs.

```
1 ' Glider Rider -- tape or disk
2 ' Remove laser turrets
3 ' by Alte de Boer
4 ' Amstrad Action   July 87
40 OPENOUT"d": MEMORY &3FF
50 LOAD"glider.bin": DEFINT i
60 PRINT"Please wait..."
70 FOR i=&8300 TO &9F20
80 IF PEEK(i)=&29 THEN POKE i,&2A
90 IF PEEK(i)=&A9 THEN POKE i,&AA
100 NEXT: CALL &400
```

A very clever poke this one. It redesigns the island. Not the complete island. That would take up over 7200 items of data. Alte's poke redesigns the whole north-eastern row. It prints AMSTRAD ACTION in giant characters. Eight screens wide! Alte says that using normal programming methods would have resulted in the use of 720 bits of data. Using a complicated line (80) he has managed to squeeze all the data into 80 bits. What a saving. Thanks, Alte. The results are stunning.

```
1 ' Glider Rider -- tape or disk
2 ' Re-designed island
3 ' By Alte de Boer
20 OPENOUT"d": MEMORY &3FF
30 LOAD"glider.bin"
40 PRINT"Please wait..."
50 FOR a=0 TO &4F: READ a$
60 FOR b=0 TO 8
70 POKE &8300+a*9+b,&24+VAL(MID$
 ("0"+BIN$(VAL("&"+a$),8),b+1,1))
80 NEXT b,a: CALL &400
90 DATA 0,24,56,55,74,54,54,54
100 DATA 0,4c,d2,50,4c,42,52,4c
110 DATA 0,ec,4a,4a,4c,4a,4a,4a
120 DATA 0,4c,aa,aa,ea,aa,aa,ac
130 DATA 0,11,2a,2a,3a,2a,2a,29
140 DATA 0,ba,12,12,12,12,12,92
150 DATA 0,67,94,94,94,94,94,64
160 DATA 0,80,80,80,80,80,80,80
170 DATA 0,0,0,0,0,0,0,0
180 DATA 0,0,0,0,0,0,0,0
```

Jan-Mirko Maczewski of West Germany didn't want to get left out of the *Glider Rider* mayhem. Indeed, he has sent in pokes to disable the lasers and supply you with infinite bombs, time and energy. Disk or cassette users can benefit from this one. Method 1 if you have it on tape.

```
1 ' Glider Rider -- tape or disk
2 ' by Jàn-Mirko Maczewski
3 ' Amstrad Action   July 87
10 OPENOUT"x": MEMORY 1023
20 LOAD"glider.bin"
30 POKE &12DF,&BF ' infinite bombs
40 POKE &1314,&B7 ' infinite energy
45 ' disable lasers
50 POKE &334D,24: POKE &44E4,&C9
60 POKE &11BB,&C9 ' infinite time
```

DOOMSDAY BLUES

A Method 2 poke (fast-forward the cassette until you reach the binary file EDEN, which is the first block after the picture) from **Stephen Basford** in Crewe, Cheshire. You are given infinite strength, bravery and fitness. If endlessness equals mindlessness in your books then you can alter the amount of strength etc that you have – must be in the range 1 to 100.



```
1 ' Eden Blues -- tape
2 ' by Stephen Basford
3 ' Amstrad Action   July 87
10 MODE 1
20 INPUT "Remain value (70): ",r
30 INPUT "Use value (10): ",u
40 INPUT "inf.strength (y/n): ",a$
50 INPUT "inf.bravery (y/n): ",b$
60 INPUT "inf.fitness (y/n): ",c$
70 CLS: LOCATE 1,3
80 sum=0
90 FOR c=49152 TO 49219
100 READ d$: d=VAL("&"+d$)
110 POKE c,d: sum=sum+d
120 NEXT c
130 IF sum<>6286 THEN STOP
140 POKE &C016,r: POKE &C01B,u
150 IF a$="n" THEN POKE &C020,53
160 IF b$="n" THEN POKE &C039,53
170 IF c$="n" THEN POKE &C02B,53
180 CALL 49152
190 DATA F3,06,04,21,40,C0,11,40
200 DATA 00,CD,77,BC,21,40,00,CD
210 DATA 83,BC,CD,7A,BC,3E,46,32
220 DATA 86,71,3E,0A,32,8B,71,3E
230 DATA 00,32,5D,8D,32,BC,95,32
240 DATA 12,96,3E,00,32,97,8F,32
250 DATA 98,8F,32,5B,90,32,28,98
260 DATA 3E,00,32,87,91,C3,00,70
270 DATA 45,44,45,4E
```



HIVE

Infinite energy for Firebird's buzzing, but not budget, game has been hacked by poker extraordinaire **Phil Howard** of Mapperley, Nottingham. Use Method 1.

```
1 ' Hive -- tape
2 ' by Phil Howard
3 ' Amstrad Action   July 87
10 DATA cf,ca,8a,21,38,bd
20 DATA 36,1b,21,0e,bc,36
30 DATA c3,23,36,16,23,36
40 DATA be,c3,00,3c,cd,00
50 DATA be,21,20,be,22,ac
60 DATA 01,c9,af,32,c0,34
70 DATA 32,59,3c,c3,82,12
80 y=0: MEMORY &3000
90 FOR x=&BE00 TO &BE29
100 READ a$: a=VAL("&"+a$)
110 POKE x,a: y=y+a: NEXT
120 IF y<>&1008 THEN 140
130 LOAD"hive1": CALL &BE03
140 PRINT"Data error"
```

Avenger

RpM has had a hectic poking session this month. Gremlin's disk version of the beat-em-up game is his latest victim. Kwon will never get tired of replenishing your energy with this poke.

```
1 ' Avenger -- disk
2 ' by RpM
3 ' Amstrad Action   July 87
10 DATA 00,3E,01,CD,0E,BC
20 DATA 21,C4,00,CD,D4,BC
30 DATA 22,C5,00,11,00,00
40 DATA 21,00,01,0E,41,DF
50 DATA C5,00,21,BD,00,22
60 DATA 6E,01,C3,00,01,AF
70 DATA 32,C1,6C,C3,DB,65
80 DATA 84,00,00,07
90 FOR t=&9A TO &C7
100 READ a$: z=z+VAL("&"+a$)
110 POKE t,VAL("&"+a$): NEXT
120 IF z=3828 THEN CALL &9A
130 PRINT"error in DATA"
```

Deep Strike

In *AA* 20 was the cassette poke for Durell's chocks-away-chaps game. **Stephen Basford** has kindly sent in pokes for the disk version. By altering the value (3) in line 140 you can select the number of bombers you want. Remove line 150 if you don't care for invulnerability.

```
1 ' Deep Strike -- disk
2 ' by S Basford
3 ' Amstrad Action   July 87
10 MODE 1: MEMORY 5000
20 LOAD"dopic": BORDER 0
30 INK 0,18: INK 1,26
40 INK 2,6: INK 3,2
50 OUT &BC00,1: OUT &BD00,32
60 OUT &BC00,2: OUT &BD00,42
70 OUT &BC00,6: OUT &BD00,24
80 CALL 32768: LOAD"frame",&9E00
90 LOAD"deep.bin": LOAD"tables",&C700
100 LOAD"hills",&CE00: LOAD"moved"
110 LOAD"graphics",&D600
120 POKE &57E0,201: POKE &5777,201
130 POKE &5729,0: ' Protection
140 POKE &5BDF,3: ' No. of Bombers
150 POKE &7055,0: CALL &8600
```

ARKANOID

Imagine's coin-op goes infinite. RpM has supplied the game with a never-ending supply of bats. Disk only.

```
1 ' Arkanoid -- disk
2 ' by RpM
3 ' Amstrad Action   July 87
10 DATA 06,0A,21,75,90,11
20 DATA 00,C0,CD,77,BC,21
30 DATA 40,00,CD,83,BC,CD
40 DATA 7A,BC,21,40,00,11
50 DATA C0,75,3E,55,AE,77
60 DATA 23,13,7A,B3,3E,55
70 DATA C2,1C,90,AF,32,F3
80 DATA 02,11,7C,41,06,06
90 DATA C5,21,47,90,01,1E
100 DATA 00,ED,B0,C1,10,F4
110 DATA 21,65,90,01,10,00
120 DATA ED,B0,C3,52,46,54
130 DATA 48,49,53,20,44,49
140 DATA 53,4B,20,50,4F,4B
150 DATA 45,20,42,59,20,52
160 DATA 50,4D,20,31,39,38
170 DATA 37,20,20,20,20,48
180 DATA 49,20,41,4E,44,20
190 DATA 42,49,20,46,52,4F
200 DATA 4D,20,49,47,41,4D
210 DATA 45,20,20,2E,53,42
220 DATA 46,00,00
230 a=PEEK(&BE42): b=PEEK(&BE43)
240 c=256*b+a: FOR d=c TO c+24
250 POKE d,0: NEXT d: CAT
260 FOR t=&9000 TO &9080
270 READ a$: b=b+VAL("&"+a$)
280 POKE t,VAL("&"+a$): NEXT t
290 IF b=10411 THEN CALL &9000
300 PRINT"ERROR IN DATA"
```

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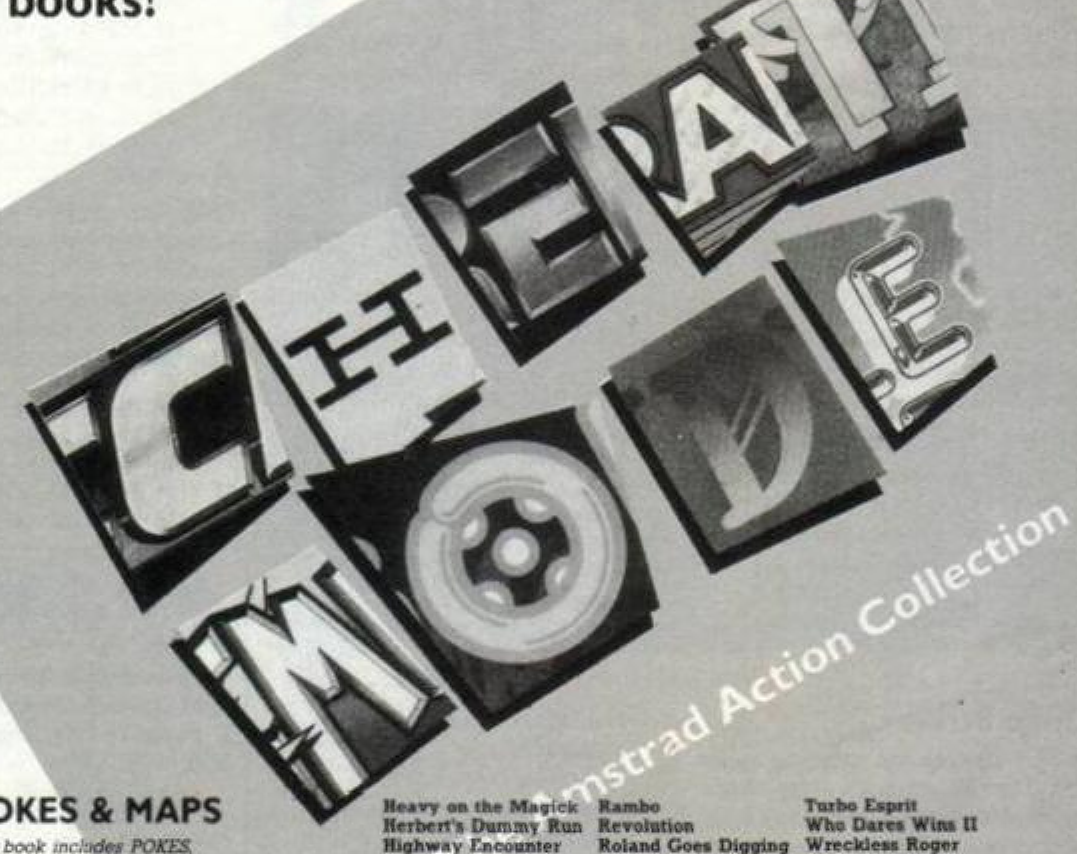
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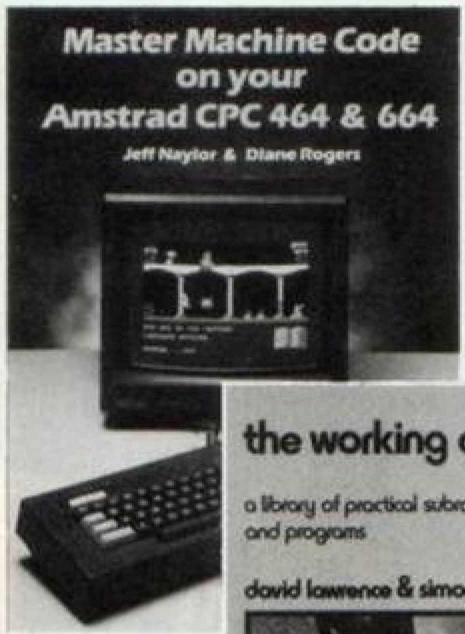
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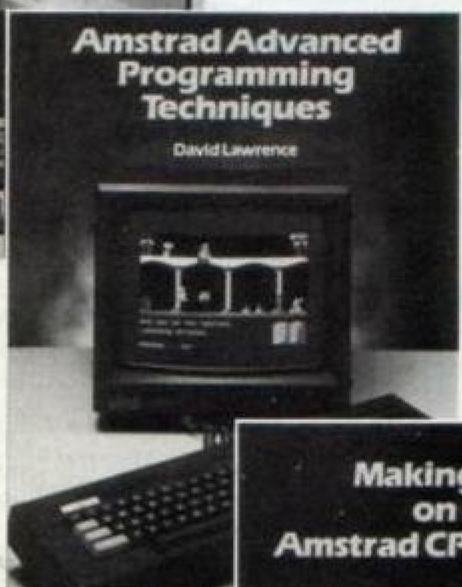
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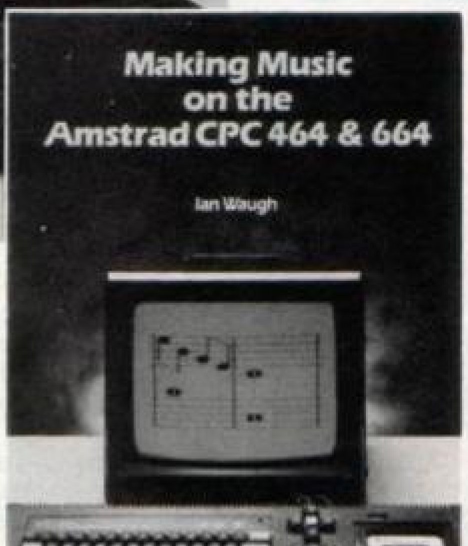
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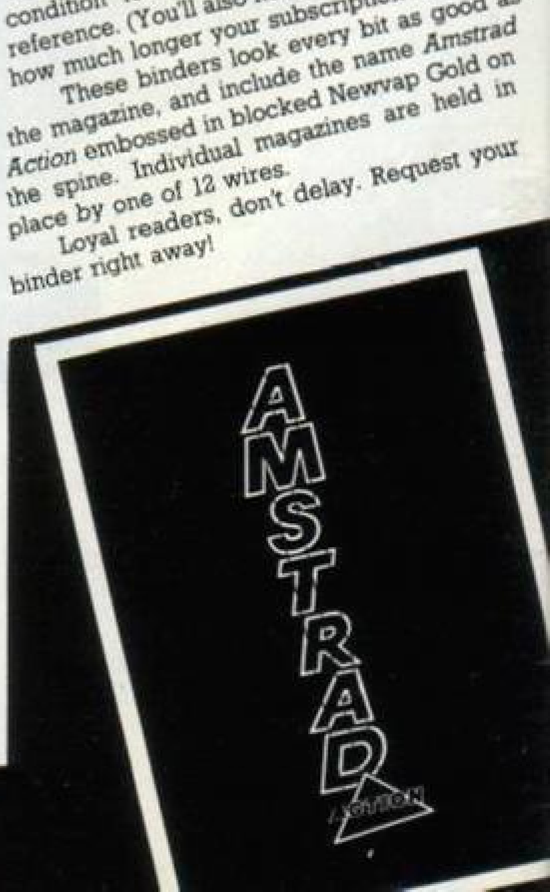
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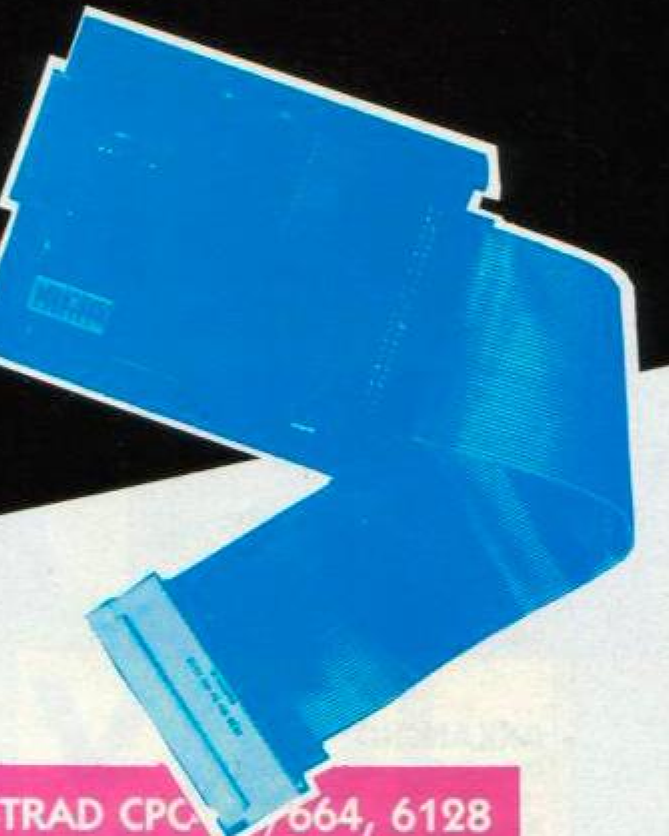
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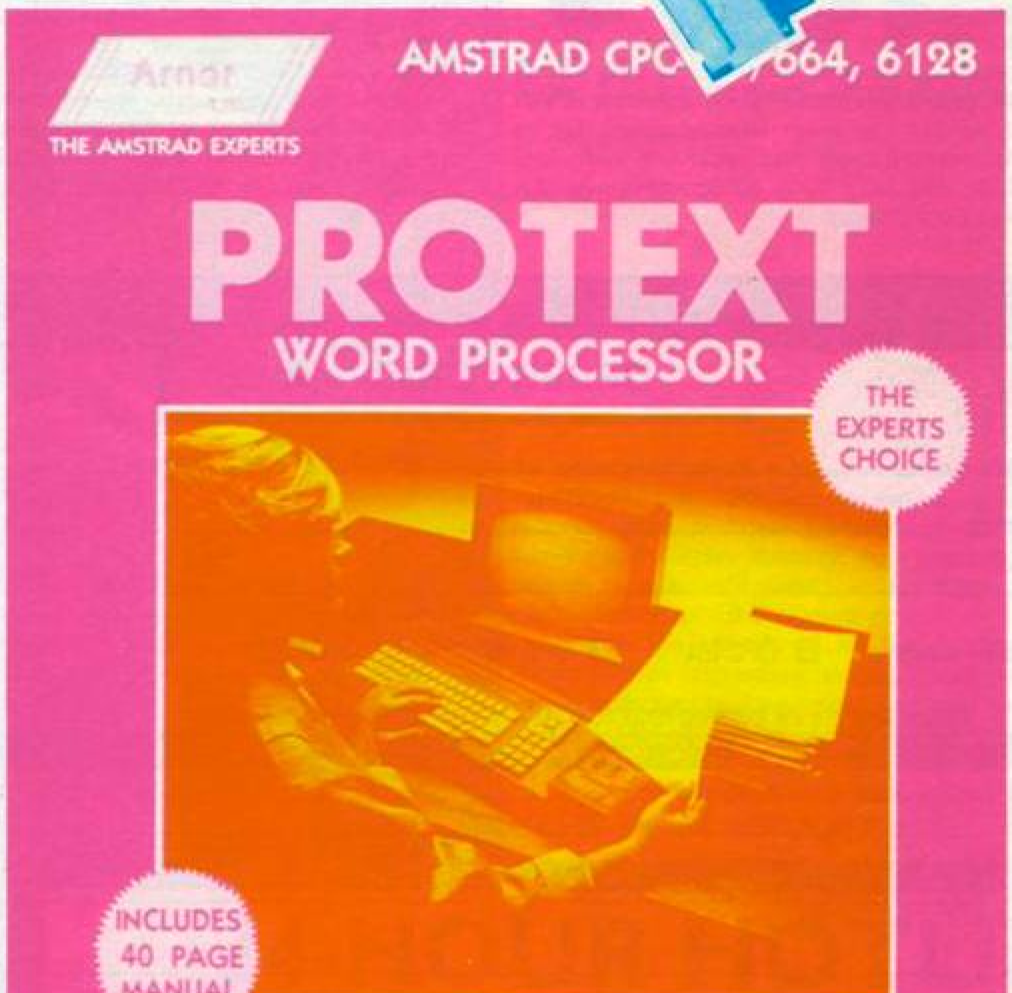
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WANT A THINGI?

Only £5.95– save £2!

What's white, dangles papers next to your computer screen, and costs two pounds less than in the shops? Yes, a Thingi bought through Amstrad Action.

This remarkable computer accessory – an idea so simple it's ingenious – could dramatically ease your hours at the keyboard. All it is is a cleverly shaped piece of plastic that attaches via Velcro to the top of your micro. But with a Thingi on your PC you can have documents, letters or program listings clipped right next to the screen in perfect reading position.

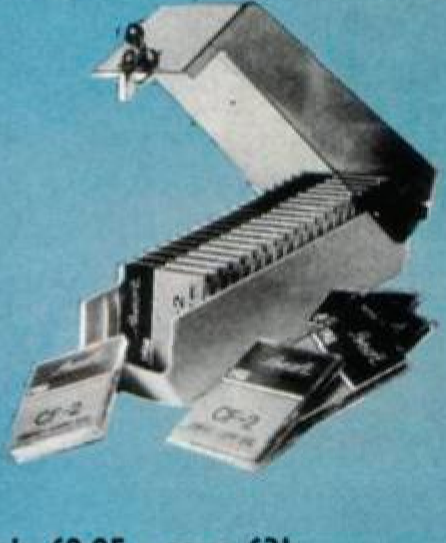
Any task involving copying off paper is thereby made much easier and faster. In fact, the clip supplied is sturdy enough to support an issue of PC Plus open, say, at the Help Screen section.

The Thingi comes in two versions, one for positioning to the left of the screen, the other to the right – the Velcro adjustment allows easy readjustment or temporary removal.

A really sensible, cost-effective add-on for your CPC.



DISC BOX!



Only £9.95 – save £3!

This will do for your discs what an AA binder does for your AAs. Keep 'em tidy. The box is made from good-quality perspex and features a tinted, hinged, lockable lid.

It's specially designed to take Amsoft 3" discs and will hold 20 (including their cases). A classy way to keep your work top organised.

VIDI

Save £20 on the amazing digitiser – only £69.95!

An accessory which adds a dramatic new capability to your CPC. You can use it to 'grab' pictures from a video recorder or video camera and display them on your computer screen to save, edit (using an art software package such as *Art Studio*) or print out.

Drawns the crowds at all the Amstrad shows with its impressive images, which can handle colour as well as mono. And now you can buy it for £20 off the recommended retail price of £89.95.

It comes complete with connections to any CPC and with software on disk.

HYDROFOOL

Only £7.95 cass – save £2!, £10.95 disk – save £3!

Gargoyle take their wacky robot Sweevo underwater for a new arcade adventure. As ever they've come up with some brilliant graphics and compulsive gameplay. Will Sweevo end up as a rust-em-up or can he pull the plug on the Deathbowl in time?

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REAR VIEW

Could it be a dream, or has Sugarman swapped his cape for a loincloth?



THEY STOLE A GAME

Back in the mists of time, our Christmas issue to be precise, you may remember a game called *They Stole a Million*: we positively raved over it. Since then it has been conspicuous by its absence, although we never found anything wrong with our pre-release version of the game. We can only apologise for raising hopes a mite too early and, like you, want someone to blame for misleading us.

Ariolasoft has obliged with a ritual sacrifice of product manager Mark Easton. Well, maybe not quite a sacrifice, but at least they put him behind bars for a while. His crime was apparently attempting some GBH on the programmers – a comforting thought for anyone who's had the game on order.

The game is now actually on sale – honestly. We would still thoroughly recommend it as an original, innovative and very enjoyable game. It costs £8.99 on cassette and £14.99 on disk.

Now, where's my axe? I want to have a word with a few programmers myself.

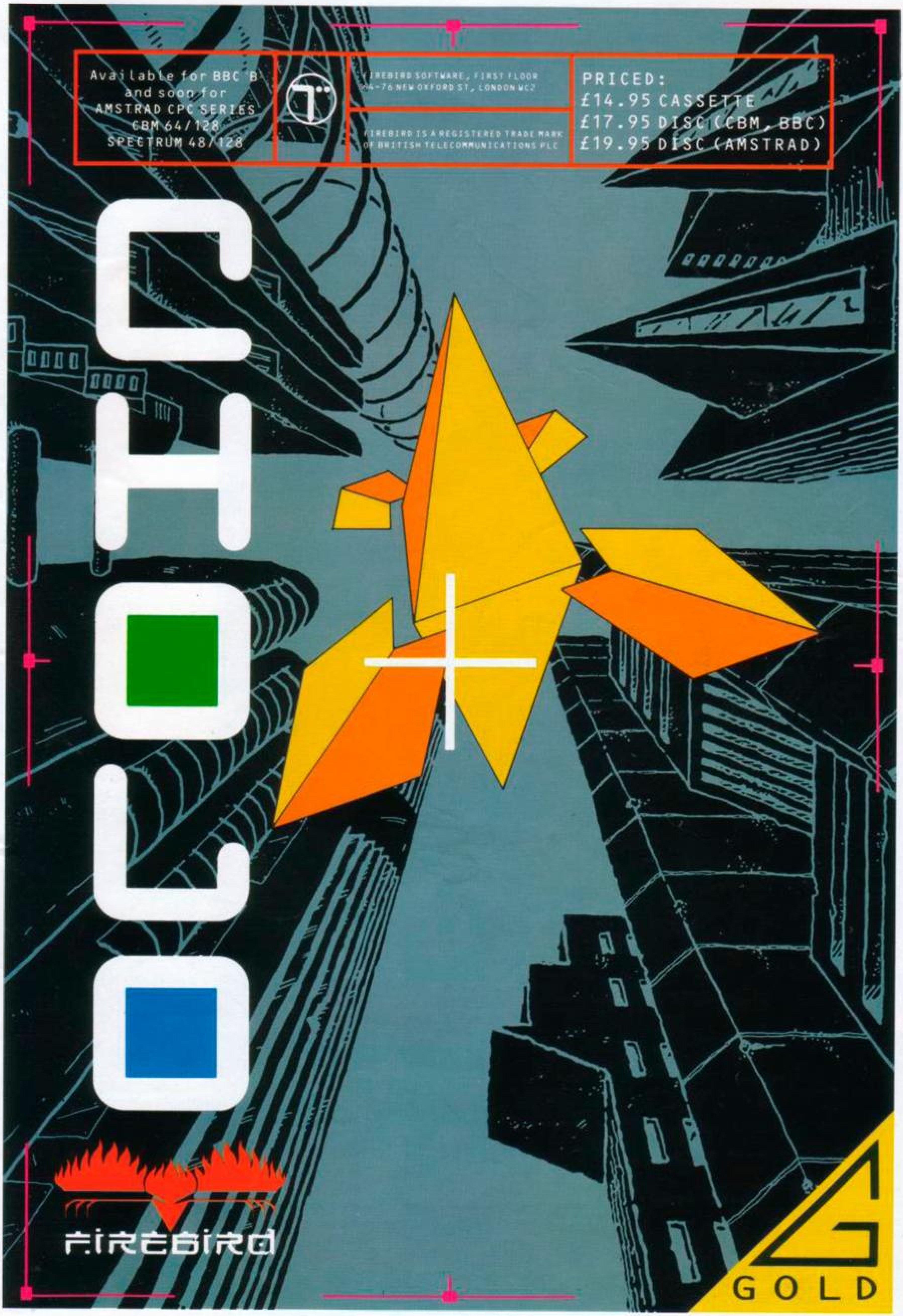
MUCK

We may have moved to cultural Bath, but in the West Country you just can't avoid Muck. This was a show in April, billed as a "major demonstration on the handling of manures, slurries and effluents." You'll want to hold your breath through this next piece – you have been warned.

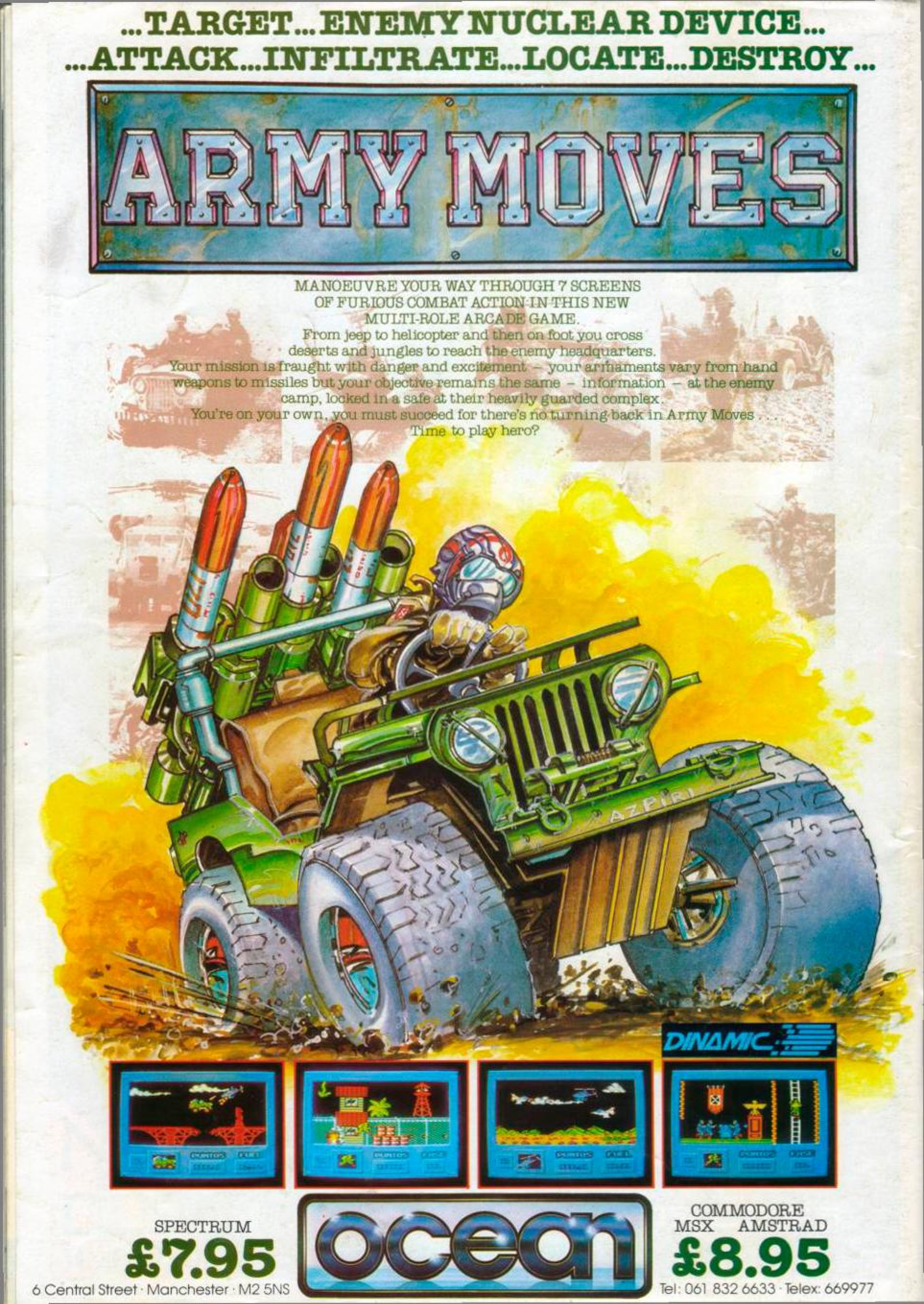
"The practical demonstrations will involve machines shown working on a 32-acre site using more than 200,000 gallons of pig slurry and 500 tons of farmyard manure." The mere thought of 200,000 gallons of pig slurry is enough to put you off your breakfast bacon, but putting it on show is more than I can take.



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